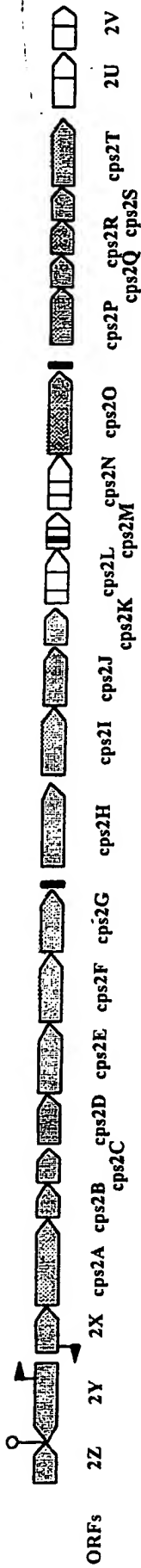
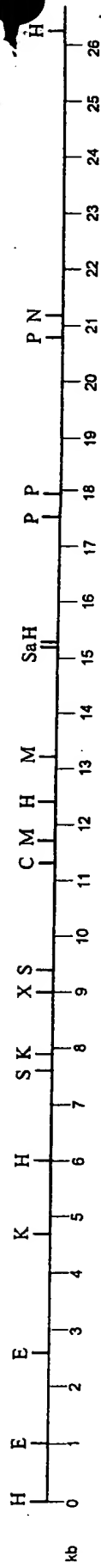


A



B



C

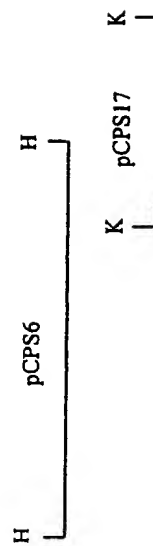


Fig. 1

FO22FO" T4023250

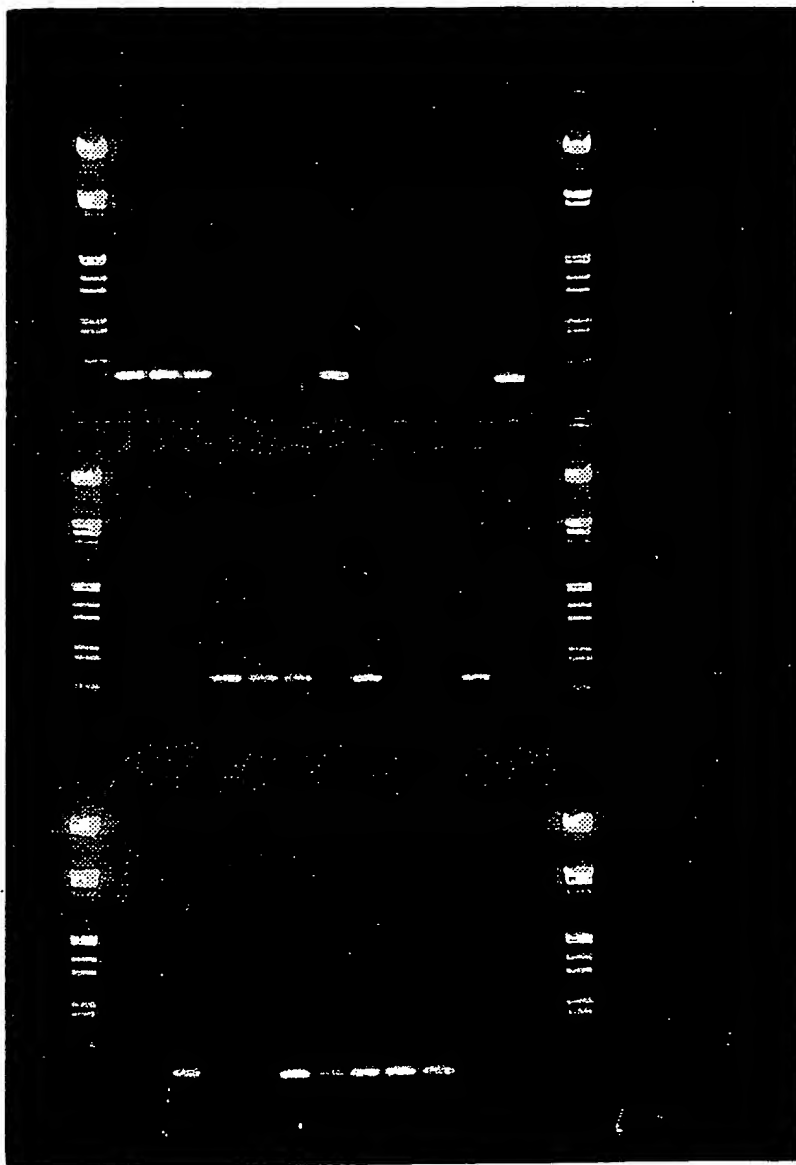


Fig. 2

Best Available Copy

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 GATAGTTTGT CAGCCAGTGG GGAAATGGAT TTACTTGTAC ACCAAATCAA TCGCTTAATT
 AGTGCAGGAT TAGATTTTCC ACAAGTAGTA GAAGCGATAA CTCACATATCG
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 CCATGTATCG CTATAACATC CTAGATTTCC GGTATTTAAA CTATATTGTG
 ACGCTTTTGC TAGTAGGAGT GGCAGTATTG GCTGGATTAT TGATGTGGCG TAAGAAAGCG
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Fig. 3

DNA Serotype 2

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Fig. 3 cont.

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Fig. 3 cont.

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Fig. 3. cont.

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 TAATAATTTG TTTAAATTT TTTTAAATAC TTTAATTAGG GAAGAAAAAA ATAATGATTA
 ACATTTCTAT CATCGTCCCA ATTTACAATG TTGAACAATA TCTATCCAAG
 TGTATAAATA GCATTGTAAA TCAGACCTAC AAACATATAG AGATTCTTCT GGTGAATGAC
 GGTAGTACGG ATAATTCGGA AGAAATTTGT TTAGCATATG CGAAGAAAGA
 TAGTCGCATT CGTTATTTTA AAAAAGAGAA CGGCGGGCTA TCAGATGCCC GTAATTATGG
 CATAAGTCGC GCCAAGGGTG ACTACTTAGC TTTTATAGAC TCAGATGATT
 TTATTCATT GGAGTTTATC CAACGTTTAC ACGAAGCAAT TGAGAGAGAG AATGCCCTTG
 TGGCAGTTGC TGGTTATGAT AGGGTAGATG CTTCGGGGCA TTTCTTAACA
 GCAGAGCCGC TTCCTACAAA TCAGGCTGTT CTGAGCGGCA GGAATGTTTG TAAAAAGCTG
 CTAGAGGCGG ATGGTCATCG CTTTGTGGTG GCCTGGAATA AACTCTATAA
 AAAAGAACTA TTTGAAGATT TTCGATTTGA AAAGGGTAAG ATTCATGAAG ATGAATACTT
 CACTTATCGC TTGCTCTATG AGTTAGAAAA AGTTGCAATA GTTAAGGAGT
 GCTTGTTACTA TTATGTTGAC CGAGAAAAATA GTATCATAAC TTCTAGTATG ACTGACCATC
 GCTTCCATTG CCTACTGGAA TTTCAAAATG AACGAATGGA CTTCTATGAA
 AGTAGAGGAG ATAAAGAGCT CTTACTAGAG TGTATCGTT CATTTTTAGC CTTTGCTGTT
 TTGTTTTTAT GCAAATATAA TCATTGGTTG AGCAAACAGC AAAAGAAGCT
 TCTCCAAACG CTATTTAGAA TTGTATATAA ACAATTGAAG CAAAATAAGC GACTTGCTTT
 ACTAATGAAT GCTTATTATT TGGTAGGGTG TCTTCATCTT AATTTTAGTG
 TCTTTCTGAA AACGGGGAAA GATAAAATC AAGAAAAGATT GAGAAGAAGT GAAAGTAGTA
 CTCGGTAAGA ATGTTGTAAT AAATGGTTGA AAGAAAAGGG GATTAAAATG
 AATCCAACAA ATAGTAGAAT AGCACTCTTT GATACGATTA AATGTATCAT GGTACTTTGT
 GTTATTTTTA CACATCTGGA TTGGTCTGTT GAGCAGCGTC AATGGTTTAT
 CTTTCCGTAT TTCGTTGACA TGGCTGTTCC AATTTTTCTG TTGCTTTCTG CCTATTTTCTG
 AACGAATAAG TGGAATACAA AACAGAGAC GCTAAAGCTC AAGTTCAGCA
 GTGGTATAAA AGAAAGTATA AACATGCTTT GTCTCTATGC TATCGTGATG GCTGTTAATG
 TTTTATTGAG CTATTCGAGA ACCATCTGAT AGGAGTAAAG CCTTTTTTCAG
 GTTCTTCATC GCTCCGTTCA TTTGTCTGT GGCTACTTTC TGGAGAATCG GGTCCAGGGA
 GTTGGGAGTT ACTATGTTCC GTTGTGATT CAGGTAGTTT TTTTATTACC
 AATTTTGTAT GTTCTTTTCTG AGAAAAATAA ATGGTTGGGC TTGCTTACTT GTTTTTTAGT
 AAATTTTCA GTGGATGCCA TATTTGCTAA CATGGCTGAA CACGGCATAT
 ATATATAGAC TAATATCACT TCGTTATCTT TTTGTTCTAG GGCTTGGTTT TTTCTTTCAA
 AGCAGGATGT GCGTTCCAAG GTAGATACTT TCATTGCGAC CCTATTTGGG
 ATTATTGGAG CAATTCTGAT TTTTGTAAT CATTCTATAG AGCCCTTCTC CTGGTTTTAT
 GGTGGAAGT CTACTTCCTT TCTATGCGTC CCATTTGCGT ATGCTATGCT
 ATTTTTTATG ATAAAGTATG GACAGAAGAT TCCAGCAATA CTGTTGTCAA AATTGGGAGT
 TGCTTCTTAT CATATCTACT TGACCCAGAT GCTGTATTTT TCAGTAGTCG

Fig. 3 cont.

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CACCATTTTT AGCAGTGCAA TTTAAGGTAT CTTTCGTTGAA TTTGTGGAAC GGCTTGTTTA
 CCTTTCTAAT TTGCCTGTTT GGTGGCTATA TTTTCTACAA AGTGGATCTG
 TTTATGAGAG TACGTGGAAA ACGATAATGA CTCATTTTCAG ATTAGCAGAT GCCATTTTCGT
 TTATTAGCAG ATTCGCATGT TAATATTCCG ACAAAGAAAT TCAAATAGGT
 TGACGAGAGA GGAGTGGTAT CTGTTTCTAA ACCCCAGTAT CCCCCTTTAT TTTCAAAGCT
 ATATTTATTA ACTGAACAAG GAGAATTTTT AAGAGAACCTG TTTGTTTAAT
 CCCAGCACGA TCTGGTTCGA AAGGCTTACC GAATAAAAAC ATGCTATTTT TGGACGGGAA
 ACCCATGATT TTTACACGA TTGATGTGGC AATTGAATCA GGTGTTTTG
 AGAAAGAAGA CATCTATGTC AGTACGGATT CAGAAATGTA TAAGGGGGG ACCTCTATAA
 ATTCCTCAAAA TTGCGAATTT GGAGTTACGA AAGCCTTGTT AAATCAACAT
 CTTAAATTTT AGAAAATTAG TTTTATAGAG TCCCAAGGG GATTGCGAG ACAAGAGGCA
 TCAATGTATT GTTAAGACCC AAAGAACTAT CTACTTATCA TACTCCATCG
 AATGAAGTCA GTACGCACTT TTTTACGAAT CTGGATTTTA TGAAGATTGT ATATTTGTTC
 TTCTGCAAGT CACCTCACCG TTACGGACTG GCGAACAGAT AAAAGAAGCC
 ATGAATATGT ACTTACAGGG GGACTCAGAA AATGTTTTGC ATTTCAATGA TGAAGGGCAA
 GAAAGAGTGA ATCAGTACAT TATCGAAGCT GTACAGGGGT TATAAAAAGG
 GGTTACTTAT CCTTAAAGTC TGTATGTAGA AGGAGAAAAA TTGAGACGAA TTTATATTTG
 CCATACGATG TATCAGATCC TGATTTCCCT GTTAAAGATG GACGTTGAGA
 GAGATAGTTT GATGTCCGTT GATATCATCG GGCATTTTCC AGATGTCAGG GAGCAACTGC
 AGCAGCATGT TCATCTAATC GAGGGAGACG GAGCGTTCAT TTGATCTATA
 TTCTTTGATA GCTAGATCAA AAACAAAAGA ACGCCTTTCC TTGTTACAGA GCTATGACGA
 GGTGATCATT TTTCAAGATC ACCGTCAAGT CCGTCATTTT TTAATAAAC
 ATCGGATTCC CTATTCTCTT TTGGAGGATG GTTATAATTT TTTCAAGGAT AAAAGAGTGT
 GCGATTTGGA GTCAATTCAA TCATCTGTCT GGAAAAGACT CTTTATCAA
 TGGTATTTTA AACCAACATA TTTGATTGGT TCAAGTCTCT ATTTGCAATC CATTGAGGTC
 AATGATCTGT CGCTCGTACA ATTTGACTAG GCTTATAAAC CCTTTGTAGA
 AGTTCCGAGA AAGCAATTAT TTGATCAAGC ATCGCCAGAG AAGGTGCAAG CGCTGCTGCA
 GATATTTGGA GCAAGGGCGA TAGTAGCGGA TGAAGAGTCT TCTCAAAAAC
 GATTGCTATT ATTGACCCAG CCCTTGCTCT GGGATTATCA TGTGACCGAA GAGAGTTGTT
 GGAGATTTAT GTAGCAGGTC TTGCCCTTA TCGGGAAGAC TATACAATCT
 ACATAAAACC GCACCCACGA GATGGGGTTG ATTATTCATT TCTGGGTAAG GCTGTGGTGC
 TTCTGCCTCA AGGTATTCCG TTTGAGTTGT TCGAAATGGC AGGTAATATC
 CGTTTTGATA TCGGTATGAC CTATAGTTCC TCTGCTTTAG ATTTTTTAAA TTGTTTTGAA
 GAGAAAGTGT ATTTAAAGGA CACTTTTCCT CTTCTTTCAA AAAATGATAT
 TTTGCGTGAG GGGATAGAAT AGGAGGATTC ATGTCTAAAA AATCAATAGT TGTCTCAGGT
 CTCGTCTATA CGATTGGAAC CATCCTCGTT CAGGGATTAG CCTTCATTAC
 CCTCCCCATC TATACTCGTG TCATTTCTCA GGAAGTATAT GGGCAGTTTA GCTTGTATAA
 TTCGTGGGTG GGGCTAGTTG GTCTCTTTAT CGGTCTACAG TTAGGTGGGG
 CTTTTGGCCC GGGATGGGTA CACTTCCGCG AGAAATTTGA TGATTTGTA TCCACCTTGA
 TGGTCTCTTC TATCGCTTTC TTTTACCCTA TTTTGGGCT ATCTTTTCTC
 CTCAGTCAGC CCCTATCGCT CCTATTGGGT TTGCCTGATT GGGTCGTTCC GCTTTACTTT
 TTGCAAAAGT TTATGAGTGT TGTGCAAGGA TTTTACGA CCTATTTAGT
 GCAGCGGCAG CAGTCCATGT GGACTTTACT CCTATCGGTA CTGAGCGCTG TTATCAACAC
 TGCTTTATCT TTATTTCTCA TCTTTTCGAT GGAGAATGAT TTCATCGCTC
 GTGTAATGGC AAACCTCGGA ACGACTGGTG TTTTGCTTG TGTGTCCTTG TTGTTTTTCT
 ATAAGAAGAT TGGGCTTCAT TTTTCATGGA TTAGGTCATA ATGTACTCAA TCAATTTGAC
 AGATATATCGA TTCCTCTTAT TTTTCACTG TCAGATGTAG CCCTATACAG
 TTTGCGCTAG ACATTGCGT CTATCTTACA AATTGTGTTT TCGAGCTTGA ATACGGTATG
 GTGTCCGTGC TATTTTGAGA AAAAGAGAGG TGCAGATAAA GATTGCTCA
 GTTATGTCCG TTAATATCTG GCGATTGGCC TGTTTGAGT TTTTGATTCTAACAATTT
 ACCCTGAATT AGCGATGTTG TTAGGTGGAT CTGAGTATCG TTTTCAAGTATG
 GGATTTATTC CCATGATTAT TGTCGGGGTG TTCTTTGTAT TTTTCCAGCC
 AATATCCAGT TTTATAGTGG AAATACAAAG TTTTGCCAA TTGGTACTTT
 TATAGCAGGT GTACTAAATA TTTCCGTCCA CTTTGTGTTG ATACCGACAA AGAATTTATG
 GTGCTGCTTT GCAACGACTG CTTCTATCT GTTGTTGCTA GTCTTGCTATT
 ATTTTGTTGC TAAGAAAAAG TATGCTTACG ATGAAGTTGC GATTTCACAA TTTGTTAAGG
 TAATTGCTCT TGTTGTCGTC TATACAGGCT TGATGACAGT ATTTGTCGGT
 TCAATCTGGA TTCGTTGGTC ACTAGGAATA GCGGTCTAG TCGTTTATGC CTACATTTTT
 AGAAAGGAAT TAACAGTTGC CCTCAATACA TTCAGGGAAA AACGGTCTAA

Fig. 3 cont.

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ATAAGGGCAC CTCTATAAAC TCCCAAAATT GCGAATTGAG AGTTACGAAA GCCTTGTTAA
 ATCAAACATT TTAAATTTTA GAAAATTAGT TTTTAGAGGT CCCCATATAA
 AAACGTCCCA AATGAGAGGT GCTCATAAGA ATTGACCATC ACTGCCATCT ACCCAAAGTT
 CAAGTATTCT CTACCATGAA AATTGTGCTA TAATCAAGTA TAAAGAAGGG
 AATGTTTCTT AAAGGACGTA TGCGCCTCTG CTTATGCCAG AAGTCATGAG GTAAATCTCC
 CTAAAAATTG GGTAGAAAAG CAGATTA AAC TCCACCAAT CTATTGAAGA
 TCGTGTGAA GAGCAGGCTT TAGAAGCAAC AAGCCCTGAG ACTATTCGAA AGAAATCTAG
 GGCTATTTTT TCTAATCGGC TATCAGAAGT GAAGTAGCGA TCTTTATTAG
 TGTTCTTTTA CTACTTAAGG AAAACCAAGC TGCTCCCTCA AGACTTTATG GGAGCGATTT
 ACAGTCATTT TTAGAAAGGA AATAAAATGG TTTATATTAT TGCAGAAATT
 GGTTGTAATC ACAACGGTGA TGTTTCATCTA GCACGGAAAA TGGTAGAAGT TGCCGTTGAT
 TGTGGTGTGG ATGCCGTTAA ATTTAGACA TTTAAGGCAG ATTTGTTGAT
 TTCAAATAC GCACCAAAGG CCGAATACCA AAAAATTACA ACAGGAGAGT CAGATTCTCA
 GCTCGAAATG ACTCGTCGTT TGGAAATTGAG CTTTGAAGAG TATCTTGATT
 TGCGTGATTA CTGTCTTGAA AAGGGAGTTG ATGTGTTTTT GACACCTTTT GATGAGGAAT
 CATTGGACTT CTGTGATTAGC ACAGATATGC CCGTTTATAA GATTCCATCT
 GGTGAGATTA CCAATCTTCC CTATTTGGAA AAAATTGGTC GTCAAGCTAA GAAAGTTATT
 CTTTCAACTG GTATGGCTGT TATGGATGAA ATTCATCAAG CGGTGAAGAT
 TTTGCAAGAA AATGGAACGA CCGATATTTT GATTTTGCAT TGTACAACCG AGTATCCAAC
 CCCTTACCCT GCTTTGAATT TGAATGTCTT GCATACCTTG AAAAAAGAAT
 TTCAAACCT AACAAATGGC TATTAGACC ATAGTGTGGG TTCAGAAGTA CCCATCGCTG
 CTGCAGCAAT GGGAGCTGAA TTGATTGAAA AGCACTTAC TCTGGACAAT
 GAAATGGAAG GACCAGATCA TAAAGCGAGT GCTACTCTG ATATCTTAGC AGCCTTGGTA
 AAAGGAGTGA GGATAGTGA ACAATCTCTT GGTAATTTG AAAAAAGAGCC
 AGAAGAGTT GAAGTACGAA ATAAATTTGT AGCTAGAAAA TCTATTGTTG CCAAAAAAGC
 AATTGCTAAA GGCGAAGTCT TTACAGAAGA AAACATCACT GTCAAAAGAC
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 TTATGCGTCG CTTATTGAGC TATCTACAGG ATGATCCAGA AATGGAGCTG
 GATCTTGTAG TGACAGCCAT GCATCTAGAA GAAAAATATG GGATGACGGT CAAAGACATC
 GAAGCGGACA AGCGTAGGAT TGTCAAGCGG ATTCATTGC ATTTGACGGA
 TACGCTAAG CAGACAATCG TCAAATCTTT AGCGACCTTG ACAGAGCAAC TCACGGTTCT
 TTTGAAGAA GTCCAGTATG ACTTGGTGTG GATTCTGGGG GATCGCTATG
 AGATGCTACC AGTTGCCAAT GCTGCGTTGC TTTATAATAT TCCTATTTGC CATATTCATG
 GTGGTGAAAA AACCATGGGA AATTTTGATG AGTCGATTG CCAATGCCAT
 ACCAAGATGA GTCACCTTCA TCTGACATCA ACCGATGAAT TTAGAAATCG TGTCAATCAA
 CTAGGAGAAA ATCCAACCAT GTACTGAACA TCGGAGCTAT GGGTGTGAA
 AATGTTTTAA AACAAAGACT TTTGACAAGA GAAGAGTTGG CGATGGAAT TGGAAATTGAT
 TTTGCCGAGG ATTACTATGT TGTACTCTT CACCCTGTTA CTTTGGAGGA
 TAACACAGCC GAAGAACAAA CGCAGGCCTT ATTAGATGCT CTAAAAGAAG ATGGTAGCCA
 GTGTTTGATA ATTTGGATCCA ATTCGGATAC ACATGCCGAT AAGATAATGG
 AATTGATGCA TGAATTTGTA AAACAAGACT CTGATTCTTA CATCTTTACT TCGCTTCCAA
 CTCGTTATTA CCATTCCTTG GTCAAGCATT CACAAGGTTT AATAGGGAAT
 TCTTCGTCAG GTTTGATTGA AGTGCCCTCA TTACAGGTTT CGACCTTAA TATTGGAAT
 CGCCAATTTG GACGTTTGTG AGGACCGAGT GTGGTACATG TTGGAACCTC
 TAAGGAAGCG ATTGTTGGTG GTTTGGGGCA ATTACGTGAT GTGATAGATT TTACCAATCC
 ATTTGAACAA CCTGATTCTG CTTTACAAGG TTATCGAGCT ATCAAGGAAT
 TTTTATCTGT ACAGGCCTCA ACCATGAAAG AGTTTTATGA TAGATAGGGG AGAAAGTTTG
 ATGAAAAAAG TAGCCTTTCT AGGAGCGGGT ACCTTTTCAG ATGGTGTCTT
 TCCTTGTTG GATAGAATC GATATGAACT CATTGGATAT TTTGAAGATA AACCGATCAG
 TGAATATCGT GGCTATCCTG TATTTGGTCC CTTGCAAGAT GTCCTAACCT
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 AGGAAATCTT TGACTTGCTT GCCAAAGATC ATTATGATGC TTTGTTCAAC
 ATCATTAGCG AGCAAGCCAA TATTTTTTCC CCAGATAGTA TCAAGGGACG AGGGGTTTTT
 ATAGGTTTTT CAAGTTTTGT AGGAGCCGAT TCCTATGTCT ATGACAATTG
 TATCATCAAT ACGGGTGCCA TTGTGGAACA TCATACCACG GTGGAGGCCC ATTGTAACAT
 TACTCCAGGA GTGACCATAA ATGGCTGTG CCGTATCGGA GAAAGCACTT
 ATATTGGAAG TGTTTCAACA GTGATTCAAT GTATCGAGAT TGCACCTTAT ACAACATTGG
 GGGCAGGGAC AGTTGTTTTG AAATCGTTGA CGGAGTCAGG GACCTATGTT

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GGTGTACCTG CTAGAAAGAT TAAATAGGTG AATTGATGGA ACCAATTTGT CTGATTCCTG
CTCGGTCAGG ATCAAAAGGT TTACCAAATA AAAACATGTT ATTTTATAGAT
GGTGTACCGA TGATTTTCCA TACCATTGGA GCTGCGATTG AGTCTGGATG TTTTAAGAAA
GAAAATATAT ATGTCAGTAC TGATTCAGAG GTTTACAAGG AAATTTGTGA
AACAACTGGG GTTCAAGTCC TCATGCGTCC AGCTGACTTG GCGACAGATT TTACAACCTC
TTTTCAACTG AACGAACATT TTTTACAAGA TTTTCTGAT GACCAAGTAT
TTGTTCTCCT GCAAGTTACG TCCCCATTAA GATCGGGAAA ACATGTCAAG GAGGCGATGG
AGTTATATGG GAAAGGTCAA GCTGACCACG TTGTTAGCTT TACCAAAGTC
GATAAGTCTC CAACATTGTT TTCAACTTTA GACGAAAACG GATTCGCTAA GGATATTGCA
GGATTAGGTG GCAGTTATCG TCGTCAAGAT GAGAAAACAC TCTACTATCC
TAATGGAGCG ATTTATATTT CTTCTAAGCA GGCTTATTTA GCGGATAAAA CTTATTTTTTC
TGAAAAACA GCGGCCTATG TGATGACGAA GGAAGATTCTG ATTGATGTAG
ATGATCAACTT TGATTTTACT GGTGTTATTG GTCGAATTTA CTTTGATTAC CAGCGTCGTG
AGCAACAAAA CAAACCATTT TATAAAAGAG AGTTAAAGCG TTTATGTGAG
CAACGAGTCC ATGATAGTCT TGTGATTGGC GATAGTCGTC TGTTAGCCTT GTTACTGGAT
GGTTTCGATA ATATCAGCAT CCGTGGGATG ACAGCTTCGA CAGCACTTGA
AAACCAAGGT CTCTTTTTGG CTTACTCCGAT AAAGAAAAGTT TTGCTTTCTC TTGGTGTGAA
TGATTTGATT ACTGACTATC CCTTGCCATAT GATTGAGGAT ACTATTCGCC
AGCTGATGGA AAGTCTTGTT TCCAAAGCAG AGCAGGTTTT TGTGACGACG ATTGCCTACA
CGCTGTTTTG TGATAGCGTT TCCAATGAAG AAATTGTGCA GCTGAATGAC
GTTATTGTTT AGTCAGCAAG TGAAGTGGGT ATTTTCAGTGA TTGATCTAAA TGAAGTTGTT
GAAAAAGAGG CGATGCTTGA CTATCAGTAT ACCAATGATG GATTGCATTT
CAATCAGATT GGACAAGAGC GTGTGAATCA GCTGATTTTG ACAAGTTTGA CAAGATAATT
TGGTGATAGA AGCTATTTCA GTGGCTAGAC TATGTTGGTA TGTGTTTTAG
AGCCCAGGAA TAACATCTGT AGAGGATGCT AGCCTTGAGA ATTGACAACC ATTTAGTTGT
TTTAATTATA TAAGGGGACC TCTAAAAACT CCCTAAATTT CCCAAAAATG
AGATAATAGA ATAAAAAGTA ATGAGGAGAG CTGTCATGCA TTTATTCACA GACGATGAAA
AAATCTTGTC AAAACTATCA GAGAAAGGCA ATCCCTTAGA ACGTTTGAT
GCCGTTATGG ATTGGAATAT CTTTCTTCCA TTGTTGTCAG AGTTATTCAG TCGTAAAGAT
AAAGTCATCA GTCGTGGCGG TCGTCCTCAC CTAGACTATC TCATGATGTT
CAAAGCGCTC TTGCTTCAAC GTCTTCATAA CCTATCTGAC GATGCCATGG AATATCAACT
GCTGATCGT ATATCTTTTC GTCGTTTTGT TGGTTGTCAT GAAGACACTG
TTCCCGATGC GAAAACTATC TGGCTCTATC GTGAGAAATT AACCAAGTCA GGTGCGTAAA
AGGAGTTGTT CGATTTGTTC TATGCCATC TCACAGATGA AGGGGTGATT
GCCCATTCAG GTCAGATTGT GGATGCTACC TTTGTGCAAT GCCCTAAACA ACGCAATTCA
CGTGAGGACA ATCAGAAAAT CAAAACCTAT CGAAAATTAT GAGGTCACAA
CAGCTAGTGT ACACGACTCC AATGTCCTAG CTCCTCTTTG TGATGCCAAT GAAGCGGTTT
TTGATGACAG TGCTTATGTT GGAAAATCAG TACCAGAAGG TTGTCGCCAC
CACACGATTC GTCGTGCTTT TAGAAAATAA CCGTTGACTG AGACTGATAA GGTCAATTAAT
CGACATATTA CCAAAGTCCG TTGTCGCGTT GAGCATGGTT TTGGCTTCAT
TGAAACTAAC ATGAAAGGTA ACATCTGTCG AGCAATTGGG AAGGCACGAG CTGAAACCAA
TGTGACCTTA ACCAACCTGC TCTACAATAT CTGTCGTTTT GAGCAAATCA
AACGACTGGG ATTACCATCC GTGGGCTTAG TGCGCCCAA AAATAGGAAA ATAAGCAAAA
AGAGGCTGGG CAAAACTAG TTTCTCACAA TAAAAAACG GCTCTTTGTC
AACTGTAGTG GGTAGACGAA AAGCTAACAC CTAGAGAGGA CGAAATTCGT TCTCTCATTT
TTGATGTTTA AAGCGTAACC GCCTAATAAC AAGGTATCTA TCCAATCACA
CATTCCTCCA TTATATAGTT AAATGAAACA AAAACAGTAC ATCTATGATA TAATGTATTT
ATGGCATATT CATTAGATTT TCGTAAAAAA GTTCTCGCAT ACTGTGAGAA
AACC GGCGAGT ATTACTGAAG CATCAGCTAT TTTCCAAGTT TCACGTAACA CTATCTATCA
ATGGCTAAAA TTAAGAGAGA AAACCGGCGA GCTTCATCAC CAAGTTAAAG
GAACCAAGCC AAGAAAAGTG GATAGAGATA AATTAAAGAA TTATCTTGAA ACTCATCCAG
ATGCTTATTT GACTGAAATA GCTTCTGAAT TTGACTGTCA TCCAACAGCT
ATTCATTACC CCTCAAGAGC TATGGGATAT ACTCGAAAAA AAAGAGCTGT ACCTACTATG
ACAAGACCC TGAAAAAGTA GAAGTGTCC TTAAGAAGTT GAATAACTTA
AGCCACTTGA CTCCTGTTTA TATTGACGAG ACAGGGTTTG AGACATATTT TCATCGAAAA
TATGGTCGCT CTTTGAAAGG TCAGTTGATA AAAGGTAAGG TCTCTGGAAG
AAGATACCAG CGGATATCTT TAGTAGCAGG TCTCATAAAT GGTGCGCTTA TAGCCCCGAT
GACATACAAA GATACTATGA CGAGTGGCTT TTTCAAGCT T

Fig. 3 cont.

SEQ. ID. NO. 9

10/59 " 04.07.99

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SLDIDHMMMEVMEASKSAAGSACPSPQAYQAAFEAGAENIIVVTITGGLSGSFNAARVARDM
YIEEHPNVNIHLIDSLASGEMDLLVHQINRLISAGLDFPQVVEAITHYREHSKLLFVLA
KVDNLVKNGRLSKLVGTVVGLLNIRMVGEASAEGKLELLQKARGHKKSVTAAFEEMKKAG
YDGGRIVMAHRNNAKFFQQFSELVKASFPTAVIDEVATSGLCSFYAEEGGLLMGYEVKA

Fig. 3 cont.

ORF2Z

SEQ. ID. NO. 10

09767041-012201

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MKKYQVIIQDILTGIEEHRFKRGEKLPSIRQLREQYHCSKDTVQKAMLELKYQNKIYAVE
KSGYYILED RFDQDHTCRAQSYRLSRITYEDFRICLKESLIGRENYLFNYYHQEGLAEL
ISSVQSLMDYHVYTKKQDLVITAGSQQALYILTQMETLAGKTEILIENTYSRMIELIR
HQGIPYQTIERNLDGIDLEELESIFQTGKIKFFYTIPRLHNPLGSTYDIATKTAIVKLAK
QYDVYIIEDDYLA DFDSSHSLPLHYLDTDNRVIIYIKSFTPTLFPALRIGAI SLPNQLRDI
FIKHKSLIDYDTN LIMQKALS LYIDNGMFARNTQHLHHIYHAQWNKIKDCLEKYALNIPY
RIPKGSVTFQLSKGILSPSIQHMF GKCY YFSGQKADFLQIFFEQDFADKLEQFVRYLNE

Fig. 3 cont.

ORF2Y

SEQ. ID. NO. 53

09767041-01204

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MKIIIPNAKEVNTNLENASFYLLSDRSKPVLDAISQFDVKKMAAFYKLNEAKAELEADRW
YRIRTGQAKTYPAWQLYDGLMYRYMDRRGIDSKEENYLRDHVRVATALYGLIHPFEFISP
HRLDFQGSLKIGNQSLKQYWRPYDQEVGDDELILSLASSEFEQVFSPIQKRLVKILFM
EEKAGQLKVHSTISKKGGRLLSWLAKNNIQELSDIQDFKVDGFEYCTSESTANQLTFXR
SIKM

Fig. 3 cont.

ORF2X

SEQ. ID. NO. 11

109767041.042201

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MKKRSGRSKSSKFKLVNFALLGLYSITLCLFLVTMYRYNILDFRYLNIVTLLLVGVAVL
AGLLMWRKKARIFTALLLVFSLVITSVGIYGMQEVVKFSTRLNSNSTFSEYEMSILVPAN
SDITDVRQLTSILAPAEYDQDNITALDDISKMESTQLATSPGTSYLTAYQSMLNGESQA
MVFNQVFTNILENEDPGFSSKVKKIYSFKVTQTVETATKQVSGDSFNIYISGIDAYGPIS
TVSRSDVNIIMTVNRATHKILLTTTPRDSYVAFADGGQNQYDKLTHAGIYGVNASVHTLE
NFYGIDISNYVRLNFISFLQLIDLVGGLDVYNDQFTSLHGNYHFPVGQVHLNSDQALGF
VRERYSLTGGDNDRGKNQEKVIAALIKMSTPENLKNYQAILSGLEGSIQTDLSLETIMS
LVNTQLESQTQFTVESQALTGTGRSDLSSYAMPGSQLYMMEINQDSLEQSKAAIQSVLVE
K

Fig. 3 cont.

CPS2A

SEQ. ID. NO. 12

T02220" T4029260

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MNNQEVNAIEIDVLFLLKTIWRKKFLILLTAVLTAGLAFVYSSFLVTPQYDSTTRIYVVS
QNVEAGAGLTNQELQAGTYLAKDYREIILSQDVLTVATELNLKESLKEKISVSI PVDTR
IVSISVRDADPNEAARIANSLRTFAVQKVVEVTKVSDVTTLEEAVPAEPTTPNTKRNIL
LGLLAGGILATGLVLVMEVLDDRVRPQDIEEVMGLTLLGIVPDSKKLK

Fig. 3 cont.

CPS2B

SEQ. ID. NO. 13

T0222T024029260

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MAMLEIARTKREGVNKTEEFNAIRTNQLSGADIKVVGITSVKSNEGKSTTAASLAIAY
ARSGYKTVLVDADIRNSVMPGFFKPITKITGLTDYLAGTTDLSQGLCDTDIPNLTVIESG
KVSPNPTALLQSKNFENLLATLRRYYDYVIVDCPPLGLVIDAAIIAQKCDAMVAVVEAGN
VKCSSLKKVKEQLEQTGTFPLGVILNKYDIATEKYSEYGNYGKKA

Fig. 3 cont.

CPS2C

SEQ. ID. NO. 14

109767041.012201

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MIDIHSHIIFGVDDGPKTIEESLSLISEAYRQGVRYIVATSHRRKGMFETPEKIIMINFL
QLKEAVAEVYPEIRLCYGAELYYSKDILSKLEKKKVPTLNGSCYILLEFSTDTPWKEIQE
AVNEMTLLGLTPVLAHIERYDALAFQSERVEKLIDKGCYTQVNSNHVLKPALIGERAKEF
KKRTRYFLEQDLVHCVASDMHNLYSRPPFMREAYQLVKKEYGEDRAKALFKKNPLLILKN
QVQ

Fig. 3 cont.

CPS2D

SEQ. ID. NO. 15

T.022T.0. T.4029250

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MNIEIGYRQTKLALFDMIAVTISAILTSHIPNADLNRSGIFIIMMVHYFAFFISRMPVEF
EYRGNLIEFEKTFNYSIIFVIFLMAVSFMLENNFALSRRGAVYFTLINFVLVYLFNVIK
QFKDSFLFSTTYQKKTILITTAELWENMQVLFESDILFQKNLVALVILGTEIDKINLPLP
LYYSVEEAIGFSTREVVDYVFINLPSEYFDLKQLVSDFELLGIDVGVDINSFGFTVLKNK
KIQMLGDHSIVTFSTNFYKPSHIWMKRLLDILGAVVGLIISGIVSILLIPIIRRDGGPAI
FAQKRVGQNGRIFTFYKFRSMFVDAEVRKKELMAQNQMGGMFKMDNDPRITPIGHFIRK
TSLDELPQFYNVVLIGDMSLVGTRPPTVDEFEKYTPSQKRRLSFKPGITGLWQVSGRSDIT
DFNEVVRLDLTYIDNWTIWSDIKILLKTVKVLLREGGQ

Fig. 3 cont.

CPS2E

SEQ. ID. NO. 16

09767041-012201

19/59

MRTVYIIGSKGIPAKYGGFETTFVEKLTEYQKDKSINYFVACTRENSAKSDITGEVFEHNG
ATCFNIDVPNIGSAKAILYDIMALKKSIEIAKDRNDTSPIFYILACRIGPFIYLFKKQIE
SIGGQLFVNPDGHEWLREKWSYPVRQYWKFSESLMLKYADLLICDSKNIEKYIHEDYRKY
APETSYIAYGTDLDKSRLSPTDSVVREWYKEKEISENDYYLVVGRFVPENNYEVMIREFM
KSYSRKDFVLI TNVEHNSFYEKLKKTGFDKDKRIKFVGTVYNQELLKYIRENAFAYFHG
HEVGGTNPSLLEALSSTKLNLLLDVGFNREVGEAGKYWNKDNLHRVIDSCEQLSQEQIN
DMDSLSTKQVKERFSWDFIVDEYEKLFKG

Fig. 3 cont.

CPS2F

SEQ. ID. NO. 17

09767041.012201

20/59

MKKILYLHAGAELYGADKVLELIKGLDKNEFEAHVILPNDGVLVPALREVGAQVEVINY
PILRRKYFNPKGIFDYFISYHHYSKQIAQYAIENKVDIIHNNTTAVLEGIYLRKRLKLPL
LWHVHEIIVKPKFISDSINFLMGRFADKIVTVSQAVANHIKQSPHIKDDQISVIYNGVDN
KVIFYQSDARSVRERFDIDEALVIGMVGVRVNAWKQGDFLEAVAPILEQNPKAIAFIAGS
AFEGEEWRVVELEKKISQLKVSSQVXRMDYYANTTELYNMFDFVLPSTNPDPLPTVVLK
AMACGKPVVGYRHGGVCEMVKEGVNGFLVTPNSPLNLSKVILQSENINLRKKIGNNSIE
RQKEHFSLKSYVKNFSKVYTSCLKVY

Fig. 3 cont.

CPS2G

SEQ. ID. NO. 18

T.022T.0 " T.4029260

21/59

MKIISFTMVNNESEIIIESFIRYNYNFIDEMVIIDNGCTDNTMQIIFNLIKEGYKISVYDE
SLEAYNQYRLDNKYLTKIIAEKNPDLIIPLDADEFLTADSNPRKLEQLDLEKIHYVNWQ
WFVMTKKDDINDSFIPRRMQYCFEKPVWHHSDGKPVTKCIISAKYYKMNKLKLSMGHHTV
FGNPNVRIEHHNDLKFAHYRAISQEQLYKTICYTIRDIA TMENNIETAQRTNQMALIES
GVDMWETAREASYSGYDCNVIHAPIDLSFCKENIVIKYNELSRETVAERVMKTGREMAVR
AYNVERKQKEKKFLKPIIFVLDGLKGDEYIHPNPSNHLTILTEMYNVRGLLTDNHQIKFL
KVNYRLIITPDAKFLPHEFIVVPDXTDIEQVKSQYVGTGVDLSKIIISLKEYRKEIGFIG
NLYALLGFVPNMLNRIYLYIQRNGIANTI IKIKSRL.

Fig. 3 cont.

CPS2H

SEQ. ID. NO. 19

09767041-01201

22/59

MQADRRKTFGKMRIRINNLFVVAIAFMGIIISNSQVLAIGKASVIQYLSYLVILCIVN
DLLKNNKHIVVYKLGYLFLIIFLFTIGICQQILPITTKIYLSISMMIISVLATLPISLIK
DIDDFRRISNHLLFALFITSILGIKMGATMFTGAVEGIGFSQGFNGGLTHKNFFGITILM
GFVLTYLAYKYGSKRTDRFILGLELFLILISNTRSVYLILLFLFLVNLDKIKIEQRQW
STLKYISMLFCAIFLYYFFGFLITHSDSYAHRVNGLINFFEYYRNDWFHLMFGAADLAYG
DLTLDYAIRVRRVLGWNGTLEMPILLSIMLKNGFIGLVGYGIVLYKLYRNVRIKTDNIKT
IGKSVFIIVLSATVENYIVNLSFVFMPICFLLNSISTMESTINKQLQT

Fig. 3 cont.

CPS2I

SEQ. ID. NO. 20

T022T0" T4029460

23/59

MEKVSIIIVPIFNTEKYLRECLDSIISQSYTNLEILLIDDGSSDSSTDICLEYAEQDGRIK
LFRLPNGGVSNARNYGIKNSTANYIMFVDSDDIVDGNIVESLYTCLKENDSDLGGGLLAT
FDGNYQESSELQKCQIDLEEIKEVRDLGNENFPNHMSGIFNSPCKLYKNIYINQGFDE
QWLGEDLLFNLNYLKNIKKVRVYVNRNLYFARRSLQSTTNTFKYDVFIQLENLEEKTFDLF
VKIFGGQYEFVFKETLQWHIIYYSLLMFKNGDESLPKKLHIFKYLYNRHSLDTLSIKRT
SSVFKRICKLIVANNLFKIFLNTLIREEKND

Fig. 3 cont.

CPS2J

SEQ. ID. NO. 21

09767041.012201

24/59

MINISIIVPI YNVEQYLSKC INSIVNQTYK HIEILLVNDG STDNSEEICL AYAKKDSRIR
YFKKENGGLS DARNYGISRA KGDYLAIDS DDFIHSEFIQ RLHEAIEREN
ALVAVAGYDR VDASGHFLTA EPLPTNQAVL SGRNVCKKLL EADGHRFVVA WNKLYKKELF
EDFRFEKGKI HEDEYFTYRL LYELEKVAIV KECLYYYVDR ENSIITSSMT
DHRFHCLLEF QNERMDFYES RGDKELLLEC YRSFLAFAVL FLGKYNHWLS KQQKKLLQTL
FRIVYKQLKQ NKRLALLMNA YYLVGCLHLN FSVFLKTGKD KIQERLRRSE
SSTR

Fig. 3 cont.

CPS2K

SEQ. ID. NO. 22

T022T0" T10/9/60

25/59

MSKKSIVVSG LVYTIGTILV QGLAFITLPI YTRVISQEVY GQFSLYNSWV GLVGLFIGLQ
LGGAFGPGWV HFREKFDDFV STLMVSSIAF FLPIFGLSFL LSQPLSLLFG
LPDWVVPLIF LQSLMIVVQG FFTTYLVQRQ QSMWTLPLSV LSAVINTALS LFLTFFPMEND
FIARVMANPA TTGVLACVSX WFSQKKNGLH FRKDYLRYGL SISIPLIFHG
LGHNVLNQFD RIMLGKMLTL SDVALYSFGY TLASILQIVF SSLNTVWCPW YFEKKRGADK
DLLSYVRYYL AIGLFVTFGF LTIYPELAM LGGSEYRFSM GFIPMIIVGV
FFVFLYSFPA NIQFYSGNTK FLPIGTFIAG VLNISVHFVL IPTKNLWCCF ATTASYLLLLL
VLHYFVAKKK YAYDEVAIST FVKVIALVVV YTGLMTVFVG SIWIRWSLGI
AVLVVYAYIF RKELTVALNT FREKRSK

Fig. 3 cont.

CPS20

SEQ. ID. NO. 23

T022T0 " T404960

26/59

MVYIIAEIGC NHNGDVHLAR KMVEVAVDCG VDAVKFQTFK ADLLISKYAP KAELYQKITG
ESDSQLEMTR RLELSFEEYL DLRDYCLEKG VDVSTPFDE ESLDFLISTD
MPVYKIPSGE ITNLPYLEKI GRQAKKVILS TGMAVMDEIH QAVKILQENG TTDISILHCT
TEYPTYPAL NLNVLHTLKK EFPNLTIGYS DHSVGSEVPI AAAAMGAELI
EKHFTLDNEM EGPDKASAT PDILAALVKG VRIVEQSLGK FEKEPEEEV RNKIVARKSI
VAKKAIKGE VFTEENITVK RPGNGISPME WYKVLGQVSE QDFEEDQNIC
HSAFENQM

Fig. 3 cont.

CPS2P

SEQ. ID. NO. 24

T022T041.012201

27/59

MKKICFVTGS RAEYGIMRRL LSYLQDDPEM ELDLVVTAMH LEEKYGMTVK DIEADKRRIV
KRIPLHLTDT SKQTIVKSLA TLTEQLTVLF EEVQYDLVLI LGDRYEMPLV
ANAALLYNIP ICHIHGGEKT MGNFDESIRH AITKMShLHL TSTDEFNRV IQLGENPTMY

Fig. 3 cont.

CPS2Q

SEQ. ID. NO. 25

09767041-012201

28/59

MELGIDFAED YYVLFHPVT LEDNTAEEQT QALLDALKED GSQCLIIGSN SDTHADKIME
LMHEFVKQDS DSYIFTSLPT RYYHSLVKHS QGLIGNSSSG LIEVPSLQVP
TLNIGNRQFG RLSGPSVVHV GTSKEAIVGG LGQLRDVIDF TNPFEQPSA LQGYRAIKEF
LSVQASTMKE FYDR

Fig. 3 cont.

CPS2R

SEQ. ID. NO. 26

F02270-104960

29/59

MKKVAFLGAG TFS DGVL PWL DRTRYELIGY FEDKPISDYR GYPVFGPLQD VLTYLDDGKV
DAVFVTIGDN VKRKEIFDLL AKDHYDALFN IISEQANIFS PDSIKGRGVF
IGFSSFVGAD SYVYDNCIIN TGAIVEHHTT VEAHCNITPG VTINGLCRIG ESTYIGSGST
VIQCIEIAPY TTLGAGTVVL KSLTESGTYV GVPARKIK

Fig. 3 cont.

CPS2S

SEQ. ID. NO. 27

09767041.012201

30/59

MEPICLIPAR SGSKGLPNKN MLFLDGVPMI FHTIRAAIES GCFKKENIYV STDSEVYKEI
CETTGVQVLM RPADLATDFT TSFQLNEHFL QDFSDDQVFV LLQVTSPLRS
GKHVKEAMEL YGKGQADHVV SFTKVDKSPT LFSTLDENGF AKDIAGLGGS YRRQDEKTLY
YPNGAIYISS KQAYLADKTY FSEKTAAYVM TKEDSIDVDD HFDFTGVIGR
IYFDYQRREQ QNKPFYKREL KRLCEQRVHD SLVIGDSRLL ALLLDGFDNI SIGGMTASTA
LENQGLFLAT PIKKVLLSLG VNDLITDYPL HMIEDTIRQL MESLVSKAEQ
VFVTTIAYTL FRDSVSNEEI VQLNDVIVQS ASELGISVID LNEVVEKEAM LDYQYTNDGL
HFNQIGQERV NQLILTSLTR

Fig. 3 cont.

CPS2T

SEQ. ID. NO. 28

T022T0" T409460

WO 00/05378		31/59		PCT/NL99/00460		
ATCGCCAAAC	GAAATTGG	TTATTTGATA	TGATAGCAGT	TGCAATTTCT	CAATCTTAA	CAAGTCATAT
ACCAAATGCT	GATTTAAATC	GTTCTGGAAT	TTTTATCATA			
ATGATGGTTC	ATTATTTTGC	ATTTTTTATA	TCTCGTATGC	CAGTTGAATT	TGAGTATAGA	GGTAATCTGA
TAGAGTTTGA	AAAAACATTT	AACATATAGTA	TAATATTTGC			
AATTTTCTT	ACGGCAGTAT	CATTTTGT	GGAGAATAAT	TTCGCACTTT	CAAGACGTGG	TGCCGTGTAT
TTACATTAA	TAAACTTCGT	TTTGGTATAC	CTATTTAACG			
TAATTATTAA	GCAGTTTAAG	GATAGCTTTC	TATTTTCGAC	AATCTATCAA	AAAAAGACGA	TTCTAATTAC
AACGGCTGAA	CGATGGGAAA	ATATGCAAGT	TTTATTTGAA			
TCACATAAAC	AAATTCAAAA	AAATCTTGTT	GCATTGGTAG	TTTTAGGTAC	AGAAATAGAT	AAAATTAATT
TATCATTACC	GCTCTATTAT	TCTGTGGAAG	AAGCTATAGA			
GTTTTCAACA	AGGGAAGTGG	TCGACCACGT	CTTTATAAAT	CTACCAAGTG	AGTTTTTAGA	CGTAAAGCAA
TTCTGTTTCAG	ATTTTGAGTT	GTTAGGTATT	GATGTAAGCG			
TTGATATTAA	TTCATTCCGGT	TTTACTGCGT	TGAAAAACAA	AAAAATCCAA	CTGCTAGGTG	ACCATAGCAT
TGTAACTTTT	TCCACAAATT	TTTATAAGCC	TAGTCATATC			
ATGATGAAAC	GACTTTTGGA	TATACTCGGA	GCGGTAGTCG	GGTTAATTAT	TTGTGGTATA	GTTTCTATTT
TGTTAGTTCC	AATTATTTCGT	AGAGATGGTG	GACCGGCTAT			
TTTTGCTCAG	AAACGAGTTG	GACAGAATGG	ACGCATATTT	ACATTCTACA	AGTTTCGATC	GATGTATGTT
GATGCTGAGG	AGCGCAAAAA	AGACTTGCTC	AGCCAAAAAC			
AGATGCAAGG	GTGGGTATGT	TTTAAAATGG	GAAAAACGAT	CCTAGAATTA	CTCCAATTGG	ACATTTTCATA
CGCAAAAAACA	AGTTTAGACG	AGTTACCACA	GTTTTATAAT			
GTTTTAATTG	GCGATATGAG	TCTAGTTGGT	ACACGTCCAC	CTACAGTTGA	TGAATTTGAA	AAATATACTC
CTGGTCAAAA	GAGACGATTG	AGTTTAAAC	CAGGGATTAC			
AGGTCCTCTGG	CAGGTAGTGT	GTCGTAGTAA	TATCACAGAC	TTTGACGACG	TAGTTCGGTT	GGACTTAGCA
TACATTGATA	ATTGGACTAT	CTGGTCAGAT	ATTAAAAATT			
TATTAAAGAC	AGTGAAAAGT	GTATTGTTGA	GAGAGGGAAG	TAAGTAAAAG	TATATGAAAG	TTTGTTTGGT
CGGTTCTTCA	GGGGGACATT	TGACTCACTT	GTATTTGTTA			
AAACCGTTTT	GGAAAGGAAGA	AGAACGTTTT	TGGGTAACAT	TTGATAAAGA	GGATGCAAGA	AGTCTTTTGA
AGAATGAAAA	AATGTATCCA	TGTTACTTTT	CAACAAATTC			
CAATCTCATT	AATTTATGTA	AAAAACTTTT	CCTAGCTTTT	AAAATTTTAC	GTGATGAGAA	ACCAGATGTT
ATTATTTTAT	CTGGTGCGGC	CGTTGCTGTC	CCCTTCTTTT			
ACATCGGAAA	ACTATTTGGA	GCAAAGACGA	TTTATATTGA	AGTATTTGAT	CGAGTTAATA	AATCTACATT
AACTGGAAAA	CTAGTTTATC	CCGTAACAGA	TATTTTTATT			
GTTCAGTGGG	AAGAAATGAA	GAAGGTATAT	CCTAAATCTA	TTAACTTGGG	GAGTATTTTT	TAATGATTTT
TGTAACAGTA	GGAACTCATG	AACAACAGTT	TAAATCGATTG			
ATAAAAGAGA	TTGATTTTAT	GAAAAAAAT	GGAAAGTATA	CCGACGAAAT	ATTTATTCAA	ACAGGATATT
CTGACTATAT	TCCAGAATAT	TGCAAGTATA	AAAAATTTCT			
CAGTTACAAA	GAAATGGAAC	AATATATTAA	CAAATCAGAA	GTAGTTATTT	GCCACGGAGG	CCCCGCTACT
TTTATGAATT	CATTATCCAA	AGGAAAAAAA	CAATTATTGT			
TTCTTAGACA	AAAAAAGTAT	GGTGAACATG	TAAATGATCA	TCAAGTAGAG	TTTGTAAGAA	GAATTTTACA
AGATAATAAT	ATTTTATTTA	TAGAAAAAT	AGATGATTTG			
TTTGAAAAAA	TATTTGAAGT	TTCTAAGCAA	ACTAACTTTA	CATCAAATAA	TAATTTTTTT	TGTGAAAGAT
TAAAACAAAT	AGTTGAAAAA	TTTAATGAGG	ATCAAGAAAA			
TGAATAATAA	AAAAGATGCA	TATTTGATAA	TGGCTTATCA	TAATTTTTCT	CAGATTTTAC	TGGAGAGGGA
TACAGATATT	ATCATCTTCT	CTCAGGAGAA	TGCACACCAT			
TAGTTCCCTC	AGAATACCTG	TATAATTATT	TTAAATATTC	TCAGGATTTA	TATGTTGAAT	TTACAAAAGA
TGAGCAAAAA	TATAAAGAAA	ATAGGATATA	TGAACGAGTT			
AAATGTTTACA	GATTATTTCC	TAAATATACA	GAAAAAACTA	TTGATAAATGT	ACTGTTTAGA	ATTTTATTAA
GAATGTATCG	AGCTTTTGAA	TACTATTTAC	AAAGATTGTT			
GTTTATTGAT	AGAATAAAAA	ACATGGTCTA	AGAATAAGAT	TTGGTTCTAA	TTGGGTTTCG	CTTCCACATG
ATTTTGTGGC	AATTCTTTTA	TCAAATGAAA	ACGAAACAGC			
TTATTTATTT	AAGTAATCTA	AATGTCCAGA	TGAATATTT	ATACAGACAA	TTATAGAAAA	ATATGAATTT
TCAAATAGAT	TATCTAAATA	TGGAAATTTA	AGATATATAA			
AGTGGAAAAA	ATCAACATCT	TCTCCTATTG	TCTTTACAGA	TGATTCTATT	GATGAATTGC	TAAATTGCAAG
AAATTTAGGT	TTTTTATTTG	CTAGAAAAGT	AAAAATAGAA			
AATAAATCTA	AATTTAAAGA	AATTATTACT	AAAAAATAAA	ATAGTTGATT	TTGTGAGAGT	AATGTATGTT
TAAATTATTT	AAATATGACC	CGGAATATTT	TATTTTTAAG			
TACTTCTGGT	TGATTATTTT	TATTCCAGAG	CAAAAGTATG	TATTTTTATT	AATTTTTTATG	AATTTAATTT
TATTTTCATAT	AAAAATTTTG	AAAACTAAGC	TAATATTTAA			
AAATGAAATT	TTATTGTTTT	TATTATCGTC	TATATTATGT	TTTGTTCAG	TAGTCACAAG	TATGTTTGT
GAATAAAATT	TTGAAAGATT	ATTTGCAGAT	TTTACTGCTC			
CCATAAATTTG	GATTATTGCA	ATAATGTATT	ATAATTTGTA	TTCATTTATA	AATATTGATT	ATAAAAAATT
AAAAAATAGT	ATCTTTTTTTA	GTTTTTTAGT	TTTATTAGGT			
ATATCTGCAT	TGTATATTAT	TCAAAATGGG	AAAGATATTG	TATTTTTAGA	CAGACACCTT	ATAGGACTAG
ACTATCTTAT	AACAGGCGTC	AAAACAAGGT				

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TACCGATCTA TTTAAGTGG TCGAGAATTG GTAGTTTATC GCTAGCAATA TTAATTATAT GCTTGTTATG
 GAGATATATA GGTGGAAAAT TTGCTTGGAT AAAAAAGCTA
 ATAGTAATAT TTGTAATACT ACTTATTATT TTAAATACTG AATTGCTTTA CCATGAAATT TTGGCTGTTT
 ATAATTCTAG AGAATCAAGT AACGAAGCTA GATTTATTAT
 TTATCAAGGA AGTATTGATA AAGTATTAGA AAACAATATT TTATTTGGAT ATGGAATATC CGAATATTCA
 GTTACGGGAA CTGGGCTCGG AAGTCATTCA GGCTATATAT
 CATTTTTTTA TAAATCAGGA ATAGTTGGGT TGATTTTACT GATGTTTTCT TTTTTTTATG TTATAAAAAA
 AAGTTATGGA GTTAATGGGG AAACAGCACT ATTTTATTTT
 ACATCATTAG CCATATTTT CATATATGAA ACAATAGATC CGATTATTAT TATATTAGTA CTATTCCTTT
 CTTCAATAGG TATTTGGAAT AATATAAATT TTAATAAGGA
 TATGGAGACA AAAATGAAT GATTTAATTT CAGTTATTGT ACCAATTTAT AATGTCCAAG ATTATCTTGA
 TAAATGTATT AACAGTATTA TTAACCAAAC ATATACTAAT
 TTAGAGGTTA TTCTCGTAAA TGATGGAAGT ACTGATGATT CTGAGAAAAT TTGCTTAAAC TATATGAAGA
 ACGATGGAAG AATTAAATAT TACAAGAAAA TTAATGGCGG
 TCTAGCAGAT GCTCGAAATT TCGGACTAGA ACATGCAACA GGTAAATATA TTGCTTTTGT CGATTCTGAT
 GACTATATAG AAGTTGCAAT GTTCGAGAGA ATGCATGATA
 ATATACTGA GTATAATGCC GATATAGCAG AGATAGATTT TTGTTTAGTA GACGAAAACG GGTATACAAA
 GAAAAAAGA AATAGTAATT TTCATGTCTT AACGAGAGAA
 GAGACTGTAA AAGAATTTTT GTCAGGATCT AATATAGAAA ATAATGTTTG GTGCAAGCTT TATTCACGAG
 ATATTATAAA AGATAATAAA TTCCAAATTA ATAATAGAAG
 TATTGGTGAG GATTTGCTTT TTAATTTGGA GGTCTTGAAC AATGTAACAC GTGTAGTAGT TGATACTAGA
 GAATATTATT ATAATTATGT CATTCGTAAC AGTTCGCTTA
 TTAATCAGAA ATTCTCTATA AATAATATTG ATTTAGTCAC AAGATTGGAG AATTACCCCT TTAAGTTAAA
 AAGAGAGTTT AGTCATTATT TTGATGCAAA AGTTATTAAA
 GAGAAGGTTA AATGTTTAAA CAAAATGTAT TCAACAGATT GTTTGGATAA TGAGTTCTTG CCAATATTAG
 AGTCTTATCG AAAAGAAATA CGTAGATATC CATTTATTAA
 AGCGAAAAGA TATTTATCAA GAAAGCATT AGTTACGTTG TATTTGATGA AATTTTCGCC TAAACTATAT
 GTAATGTTAT ATAAGAAATT TCAAAGCAG TAGAGGTTAA
 AATGGATAAA ATTAGTGTTA TTGTTCCAGT TTATAATGTA GATAAATATT TAAGTAGTTG TATAGAAAGC
 ATTTATTAATC AAAATTATAA AAATATAGAA ATATTATTGA
 TAGATGATGG CTCTGTAGAT GATTCTGCTA AAATATGCAA GGAATATGCA GAAAAAGATA AAAGAGTAAA
 AATTTTTTTC ACTAATCATA GTGGAGTATC AAATGCTAGA TTGTTGACTC TGATGATGTT GTTGATAGTA
 AATCATGGAA TAAAGCGGAG TACAGCTGAA TATATTATGT
 GATTAGTAGA AAAATTATAT TTTAATATTA TAAAAAGTAG
 AAGTGATTTA TCTGGTTGTT TGTACGCTAC TTTTTCAGAA AATATAAATA ATTTTGAAGT GAATAATCCA
 AATATTGATT TTGAAGCAAT TAATACCGTG CAGGACATGG
 GAGAAAAAAA TTTTATGAAT TTGTATATAA ATAATATTTT
 AAGATACATA ACAGATCTTT TTCAAGAGAA TCAATGGTTA
 GGAGAAGATT TACTTTTTTAA TCTGCATTAT TTAAGAATA TAGATAGAGT TAGTTATTTG ACTGAACATC
 TTTATTTTTA TAGGAGAGGT ATACTAAGTA CAGTAAATTC
 TTTTAAAGAA GGTGTGTTTT TGCAATTGGA AAATTTGCAA AAACAAGTGA TAGTATTGTT TAAGCAAATA
 TATGGTGAGG ATTTTGACGT ATCAATTGTT AAAGATACTA
 TACGTTGGCA AGTATTTTAT TATAGCTTAC TAATGTTTAA ATACGGAAAA CAGTCTATTT TTGACAAATT
 TTTAATTTTT AGAAATCTTT ATAAAAAATA TTATTTTAAAC
 TTGTTAAAAG TATCTAACAA AAATCTTTG TCTAAAAATT TTTGTATAAG AATTGTTTCG AACAAAGTTT
 TTAATAAAT ATTATGGTTA TAATAGGAAG ATATCATGGA
 TACTATTAGT AAAATTTCTA TAATTGTACC TATATATAAT GTAGAAAAAT ATTTATCTAA ATGTATAGAT
 AGCATTGTAA ATCAGACCTA CAAACATATA GAGATTCTTC
 TGGTGAATGA CGGTAGTACG GATAATTCGG AAGAAATTTG TTTAGCATAT GCGAAGAAAG ATAGTCGCAT
 TCGTTATTTT AAAAAAGAGA ACGGCGGGCT ATCAGATGCC
 CGTAATTATG GCATAAGTCG CGCCAAGGGT GACTACTTAG CTTTTATAGA CTCAGATGAT TTTATTCATT
 CGGAGTTTAT CCAACGTTTA CACGAAGCAA TTGAGAGAGA
 GAATGCCCTT GTGGCAGTTG CTGGTTATGA TAGGGTAGAT GCTTCGGGGC ATTTCTTAAC AGCAGAGCCG
 CTTCTACAA ATCAGGCTGT TCTGAGCGGC AGGAATGTTT
 GTAAAAAGCT GCTAGAGGCG GATGGTCATC GCTTTGTGGT GGCCTGTAAT AACTCTATA AAAAAGAACT
 ATTTGAAGAT TTTCGATTG AAAAGGGTAA GATTCATGAA
 GATGAATACT TCACTTATCG CTGCTCTAT AAGTTGCAAT AGTTAAGGAG TGCTTGACT
 ATTATGTTGA CCAGAAAAAT AGTATCACAA CTTCTAGCAT
 GACTGACCAT CGCTTCATT GCCTACTGGA ATTTCAAAAT GAACGAATGG ACTTCTATGA AAGTAGAGGA
 GATAAGAGC TCTTACTAGA GTGTTATCGT TCATTTTATG
 CCTTGCTGT TTTGTTTTTA GGCAATATA ATCATTGGTT GAGCAAACAG CAAAAGAAGC TT

Fig. 4 cont.

SEQ. ID. NO. 29

T02227041.012201

33/59

RQTKLALFDM IAVAISAILT SHIPNADLNR SGIFIIMMVH YFAFFISRMP VEFYRGNLI
EFEKTFNYSI IFAIFLTAVS FLENNFALS RRGAVYFTLI NFVLVYLFNV
IIKQFKDSFL FSTIYQKKT I LITTAERWEN MQVLFESHKQ IQKNLVALVV LGTEIDKINL
SLPLYYSVEE AIEFSTREVV DHVFINLPSE FLDVKQFVSD FELLGIDVSV
DINSFGFTAL KNKKIQLLGD HSIVTFSTNF YKPSHIMMKR LLDILGAVVG LIICGIVSIL
LVPIIRRDGG PAIFAQKRVG QNGRIFTFYK FRSMYVDAEE RKKDLLSQNQ
MQGWVCFKMG KTILELLQLD ISYAKTSLDE LPQFYNVLIG DMSLVGTRPP TVDEFEKYTP
GQKRRLSFKP GITGLWQVSG RSNITDFDDV VRDLAYIDN WTIWSDIKIL
LKTVKVLLR EGSK

Fig. 4 cont.

CPS1E

SEQ. ID. NO. 30

T022T0" T4029260

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MKVCLVGSSG GHLTHLYLLK PFWKEERFW VTFDKEDARS LLKNEKMYPY YFPTNRNLIN
LVKNTFLAFK ILRDEKPDVI ISSGAAVAVP FFYIGKLFGA KTIYIEVFDR
VNSTLTGKL VYPVTDIFIV QWEEMKKVYP KSINLGSIF

Fig. 4 cont.

CPS1F

SEQ. ID. NO. 31

F022T0 "T4029250

WO 00/05378

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PCT/NL99/00460

MIFVTVGTHE QQ...IKEI DLLKNGSIT DEIFIQTGYS DYI...KYK KFLSYKEMEQ
YINKSEVVIC HGGFATFMNS LSKGKKQLLF PRQKKYGEHV NDHQVEFVRR
ILQDNNILFI ENIDDLFEKI IEVSKQTNFT SNNNFFCERL KQIVEKFED QENE

Fig. 4 cont.

CPS1G

SEQ. ID. NO. 32

09767041-01221
T022T0-T4029250

36/59

MFKLFKYDPE	YF Y FKYFWLI	IFIPEQKYVF	LLIFMNLILF	HIKFLKTKLI	LKNEILLFLL
WSILCFVSVV	TSMFVEINFE	RLFADFTAPI	IWI I AIMYYN	LYSFINIDYK	
KLKNSIFFSF	LVLLGISALY	IIQNGKDIVE	LDRHLIGLDY	LITGVKTRLV	GFMNYPTLNT
TTIIVSIPLI	FALIKNKMQQ	FFFLCLAFIP	IYLSGSRIGS	LSPLAILIIC	
LLWRYIGGKF	AWIKKLIVIF	VILLIILNTE	LLYHEILAVY	NSRESSNEAR	FIIYQGSIDK
VLENNILFGY	GISEYSVTGT	WLGSHSGYIS	FFYKSGIVGL	ILLMFSFFYV	
IKKSYGVNGE	TALFYFTSLA	IFFIYETIDP	IIIIILVLFFS	SIGIWNNINF	KKDMETKNE

Fig. 4 cont.

CPS1H

SEQ. ID. NO. 33

FOUO " F4029260

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MNDLISVIVP IYNVQDYLDK CINSIINQTY TNLEVILVND GSTDDSEKIC LNYMKNDGRI
KYYKKINGGL ADARNEGLEH ATGKYIAFVD SDDYIEVAMF ERMHDNITEY
NADIAEIDFC LVDENGYTKK KRNSNFHVLV REETVKEFLS GSNIENNVWC KLYSRDIKD
IKFQINNRSI GEDLLFNLEV LNNVTRVVVD TREYYNYVI RNSSLINQKF
SINNIDLVTR LENYPFKLKR EFSHYFDAKV IKEKVKCLNK MYSTDCLDNE FLPILESYRK
EIRRYPFKA KRYLSRKHLV TLYIMKFSPK LYVMLYKKFQ KQ

Fig. 4 cont.

CPS1I

SEQ. ID. NO. 34

T022T0" T4029260

38/59

MDKISVIVPV YNVDKYLSSC IESIINQNYK NIEILLIDDG SVDDSAKICK EYEKDKRVKI
FFTNHSGVSN ARNHGIKRST AEYIMFVDS D VVDSRLVEK LYFNIKSRS
DLSGCLYATF SENINNFEVN NPNIDFEAIN TVQDMGEKNF MNLXXNNIFS TPVCXLYQKR
YITDLFQENQ WLGEDLLFNL HYLKNIDRVS YLTEHLYFYR RGILSTVNSF
KEGVFLQLEN LQKQVIVLFK QIYGEDFDVS IVKDTIRWQV FYYSLLMFKY GKQSIFDKFL
IFRNLYKKYY FNLLKVSNN SLSKNFCIRI VSNKVFKKIL WL

Fig. 4 cont.

CPS1J

SEQ. ID. NO. 35

T022T0 " T4049460

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MDTISKISII VPIYNVEKYL SKCIDSIVNQ TYKHIEILLV NDGSTDNSEE ICLAYAKKDS
RIRYFKKENG GLSDARNYGI SRAKGDYLAF IDSDDFIHSE FIQRLHEAIE
RENALVAVAG YDRVDASGHF LTAEPLPTNQ AVLSGRNVCK KLEADGHRF VVACNKLYKK
ELFEDFRFEK GKIHEDEYFT YRLLYELEKV AIVKECLYYY VDRENSITTS
SMTDHRFHCL LEFQNERMDF YESRGDKELL LECYRSFLAF AVLFLGKYNH WLSKQKKK

Fig. 4 cont.

CPS1K

SEQ. ID. NO. 36

T0022T0" T4029260

Fig. 5
DNA Sero type 9

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AAGCTTATCG	TCAAGGTGTT	CGCTATATCG	TGGCGACATC	TCATAGACGA	AAAGGGATGT
TTGAAACACC	AGAAAAAGTT	ATCATGACTA	ACTTTCTTCA	ATTTAAAGAC	
GCAGTAGCAG	AAGTTTATCC	TGAAATACGA	TTGTGCTATG	GTGCTGAATT	GTATTATAGT
AAAGATATAT	TAAGCAAAC	TGAAAAAAG	AAAGTACCCA	CACTTAATGG	
CTCGCGCTAT	ATTCTTTTGG	AGTTCAGTAG	TGATACTCCT	TGGAAAGAGA	TTCAAGAAGC
AGTGAACGAA	GTGACGCTAC	TTGGGCTAAC	TCCCGTACTT	GCCCATATAG	
AACGATATGA	CGCCCTAGCG	TTTCATGCAG	AGAGAGTAGA	AGAGTTAATT	GACAAGGGAT
GCTATACTCA	GGTAAATAGT	AATCATGTGC	TGAAGCCAC	TTTAATTGGT	
GATCGAGCAA	AAGAATTTAA	AAAACGTA	CGGTATTTTT	TAGAGCAGGA	TTTAGTACAT
TGTGTTGCTA	GCGATATGCA	TAATTTATCT	AGTAGACCTC	CGTTTATGAG	
GGAGGCTTAT	AAGTTGCTAA	CAGAGGAATT	TGGCAAAGAT	AAAGCGAAAG	CGTTGCTAAA
AAAGAATCCT	CTTATGCTAT	TAAAAAACCA	GGCGATTTAA	ACTGGTTACT	
CTAGATTGTG	GAGAGAAAAA	TGGATTTAGG	AACTGTTACT	GATAAACTGT	TAGAACGCAA
CAGTAAACGA	TTGATACTCG	TGTGCATGGA	TACGTGCTCT	CTTATAGTTT	
CCATGATTTT	GAGCAGACTG	TTTTTGGATG	TTATTATTGA	CATACCAGAT	GAACGCTTCA
TTCTTGCAGT	TTTATTCGTA	TCAATTTTAT	ATTTGATTCT	ATCGTTTAGA	
TTAAAGTCT	TTTCATTAAT	TACGCGTTAC	ACAGGGTATC	AGAGTTATGT	AAAAATAGGA
CTTAGTTTAA	TATCTGCGCA	TTCATTGTTT	TTAATTATCT	CAATGGTGT	
GTGGCAGGCT	TTTAGTTATC	GTTTCATCTT	AGTATCCTTA	TTTTTGTCGT	ATGTAATGCT
CATTACTCCG	AGGATTGTTT	GGAAAGTCTT	ACATGAGACG	AGAAAAAATG	
CTATCCGTAA	GAAGGATAGC	CCACTAAGAA	TCTTAGTAGT	AGGTGCTGGA	GATGGTGGTA
ATATTTTTAT	CAATACTGTC	AAAGATCGAA	AATTGAATTT	TGAAATTGTC	
GGTATCGTTG	ATCGTGATCC	AAATAAACTT	GGAACATTTA	TCCGTACGGC	TAAAGTTTTA
GGAAACCGTA	ATGATATTCC	ACGACTGGTA	GAGGAATTAG	CTGTTGACCA	
AGTGACGATT	GCCATCCCTT	CTTTAAATGG	TAAGGAGCGA	GAGAAGATTG	TTGAAATCTG
TAACACTACA	GGAGTGACCG	TCAATAATAT	GCCGAGTATT	GAAGACATTA	
TGGCGGGGAA	CATGCTGTGC	AGTGCCTTTC	AGGAAATTGA	CGTAGCAGAC	CTTCTTGGTC
GACCAGAGGT	TGTTTTGGAT	CAGGATGAAT	TGAATCAGTT	TTTCCAAGGG	
AAAACAATCC	TTGTCACAGG	AGCAGGTGGC	TCTATCGGTT	CAGAGCTATG	TCGTCAAATT
GCTAAGTTAA	CGCCTAAACG	CTTGTTGTTG	CTTGGACATG	GAGAAAAATC	
AATCTATCTC	ATTCATCGAG	AGTTACTGGA	AAAGTACCAA	GGTAAGATTG	AGTTGGTCCC
TCTCATTGCA	GATATTCAAG	ATAGAGAATT	GATTTTTAGC	ATAATGGCTG	
AATATCAACC	CGATGTTGTT	TATCATGCTG	CAGCACATAA	GCATGTTCC	TTGATGGAAT
ATAATCCACA	TGAAGCAGTG	AAGAATAATA	TTTTTGGAAC	GAAGAATGTG	
GCTGAGGCGG	CTAAAACTGC	AAAGGTTGCC	AAATTTGTTA	TGGTTTCAAC	AGATAAAGCT
GTTAATCCAC	CAAATGTCAT	GGGAGCGACT	AAACGTGTTG	CAGAAATGAT	
TGTTACAGGT	TTAAACGAGC	CAGGTCAGAC	TCAATTTGCG	GCAGTCCGGT	TTGGGAATGT
TCTAGGTAGT	CGTGGAAGTG	TTGTTCCGCT	ATTCAAAGAG	CAAATTAGAA	
AAGGTGGACC	TGTTACGGTT	ACCGACTTTA	GGATGACTCG	TTATTTTCATG	ACGATTCCCTG
AGGCAAGTCG	TTTGTTATATC	CAAGCTGGAC	ATTTGGCAAA	AGGTGGAGAA	
ATATTTGTCT	TGGATATGGG	CGAGCCAGTA	CAAATCCTGG	AATTGGCAAG	AAAAGTTATC
TTGTTAAGTG	GACACACAGA	GGAAGAAATC	GGGATTGTAG	AATCTGGAAT	
CAGACCGGCG	GAGAAACTCT	ACGAGGAATT	ATTATCAACA	GAAGAACGTG	TCAGCGAACA
GATTCATGAA	AAAAATATTTG	TGGGTCGCGT	TACAAATAAG	CAGTCGGACA	
TTGTCAATTC	ATTTATCAAT	GGATTACTCC	AAAAAGATAG	AAATGAATTA	AAAAATATGT
TGATTGAATT	TGCAAAACAA	GAATAAGAAA	GTAAAAAATA	TTTTTACTTT	
CCTAGAGTTT	AAACGATGTT	TAAGTTCTAG	GAAGGTTAGA	ATACCTAATT	AACAACAATA
TTACTATTTA	TTAAGAGTCA	GATAATAGCA	ACTAAGTGCT	ACAAACTATC	
TTTATAATAA	GTATATTTGG	TCAAAAGGGA	GATGTGAAAT	GTATCCAATT	TGTAAACGTA
TTTAGCAAT	TATTATCTCA	GGGATTGCTA	TTGTTGTTCT	GAGTCCAATT	
TTATTATTGA	TTGCATTGGC	AATTAAATTA	GATTCTAAAG	GTCCGGTATT	ATTTAAACAA
AAGCGGGTTG	GTAAAAACAA	GTCATACTTT	ATGATTTATA	AATTCCGTTT	
TATGTACGTT	GACGCACCAA	GTGATATGCC	GACTCATCTA	TTAAAGGATC	CTAAGGCGAT
GATTACCAAG	GTGGGCGCGT	TTCTCAGAAA	AACAAGTTTA	GATGAACTGC	
CACAGCTTTT	TAATATTTTT	AAAGGTGAAA	TGGCGATTGT	TGGTCCACGC	CCAGCCTTAT
GGAATCAATA	TGACTTAATT	GAAGAGCGAG	ATAAATATGG	TGCAAAATGAT	
ATTCGTCCTG	GACTAACC	TTGGGCTCAA	ATTAATGGTC	GTGATGAATT	GGAAATTGAT
GAAAAGTCAA	AATTAGATGG	ATATTATGTT	CAAAAATATGA	GTCTAGGTTT	
GGATATTAAA	TGTTTCTTAG	GTACATTCC	CAGTGTAGCC	AGAAGCGAAG	GTGTTGTTGA
AGGTGGAACA	GGGCAGAAAG	GAAAAGGATG	AAATTTTCAG	TATTAATGTC	
GGTCTATGAG	AAAGAAAAAC	CAGAGTTTCT	TAGGGAATCT	TTGGAAAGCA	TCCTTGTC
TCAAACAATG	ATTCCAACGG	AGGTTGTCTT	GGTAGAGGAT	GGGCCACTCA	
ATCAGAGCTT	ATATAGTATT	TTAGAAGAAT	TTAAAAGTCG	ATTTTCATTT	TTTAAACGA
TAGCCTTGGA	AAAGAATTCG	GGTTTAGGAA	TTGCACTGAA	TGAAGGTTT	
AAACATTGTA	ATTATGAGTG	GGTTTGACG	AAATGGATT	TGATGATGTT	GCATATACAT
ACACGTTTTG	AAAAGCAAGT	TAACTTTATA	AAACAAAACC	CGACTATAGA	

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TATTGAGATA GATGAGTTCT TAAATTCTAC TAGTGAAATA GTTCTCATA AAAATGTTCC
AACCCAGCAC GATGAAATAT TAAAGATGGC AAGGCGGGAG AAATCCATGT
GCCACATGAC TGTAAATGTTT AAAAAGAAAA GTGTCGAGAG AGCAGGGGGG TATCAAACAC
TTCCGTACGT AGAAGATTAT TTCCTTTGGG TGCGCATGAT TGCTTCAGGA
TCGAAATTTG CAAACATTGA TGAAACACTA GTTCTTGACAC GTGTTGGAAA TGGGATGTTC
AATAGGAGGG GGAACAGAGA ACAAATTAAC AGTTGGACAT TACTAATTGA
ATTTATGTTA GCTCAAGGAA TTGTTACACC ACTAGATGTA TTTATTAATC AAATTTACAT
TAGGGTCTTT GTTTATATGC CAACTTGGAT AAAGAACTC ATTTATGGAA
AAATCTTAAG GAAATAGTAT GATTACAGTA TTGATGGCTA CATATAATGG AAGCCCATT
ATAATAAAC AGTTAGATTC AATTCGAAAT CAAAGTGTAT CAGCAGACAA
AGTTATTATT TGGGATGATT GCTCGACAGA TGATACAATA AAAATAATAA AAGATTATAT
AAAAAATAT TCTTTGGATT CATGGGTTGT CTCTCAAAAT AAATCTAATC
AGGGGCATTA TCAAACATTT ATAAATTTGA CAAAGTTAGT TCAGGAAGGA ATAGTCTTTT
TTTCAGATCA AGATGATATT TGGGACTGTC ATAAATTTGA GACAATGCTT
CCAATCTTTG ACAGAGAAAA TGTATCAATG GTGTTTTGCA AATCCAGATT GATTGATGAA
AACGGAATA TTATCAGTAG CCCAGATACT TCGGATAGAA TCAATACGTA
CTCTCTAGA

Fig. 5 cont.

SEQ. ID. NO. 37

T022T0 " T4029260

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AYRQGVRYIV ATSHRRKGMF ETPEKVIMTN FLQFKDAVAE VYPEIRLCYG AELYYSKDIL
SKLEKKKVPT LNGSRYILLE FSSDTPWKEI QEAVNEVTLL GLTPVLAHIE
RYDALAFHAE RVEELIDKGC YTQVNSNHVL KPTLIGDRAK EFKKRTRYFL EQDLVHCVAS
DMHNLSSRPP FMREAYKLLT EEF GKDKAKA LLKKNPLMLL KNQAI

Fig. 5 cont.

CPS9D

SEQ. ID. NO. 38

T022T0 " T4029260

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MDLGTVTDKL	LERNKRLLIL	VCMdTCLLIV	SMILSRFLD	VIIDIPDERF	ILAVLFVSIL
YLILSFRLKV	FSLITRYTGY	QSYVKIGLSL	ISAHSLFLII	SMVLWQAFSY	
RFILVSLFLS	YVMLITPRIV	WKVLHETRKN	AIRKKDSPLR	ILVVGAGDGG	NIFINTVKDR
KLNFEIVGIV	DRDPNKLGTf	IRTAKVLGNR	NDIPRLVEEL	AVDQVTIAIP	
SLNGKEREKI	VEICNTTGVT	VNNMPSIEDI	MAGNMSVSAF	QEIDVADLLG	RPEVVLDQDE
LNQFFQGKTI	LVTGAGGSIG	SELCRQIAKF	TPKRLLLLGH	GENSIYLIHR	
ELLEKYQGKI	ELVPLIADIQ	DRELIFSIMA	EYQPDVVYHA	AAHKHVPLME	YNPHEAVKNN
IFGTKNVAEA	AKTAKVAKFV	MVSTDKAVNP	PNVMGATKRV	AEMIVTGLNE	
PGQTQFAAVR	FGNVLGSRGS	VVPLFKEQIR	KGGPVTVTDF	RMTRYFMTIP	EASRLVIQAG
HLAKGGEIFV	LDMGEPVQIL	ELARKVILLS	GHTEEEIGIV	ESGIRPGEKL	
YEELLSTEER	VSEQIHEKIF	VGRVTNKQSD	IVNSFINGLL	QKDRNELKNM	LIEFAKQE

Fig. 5 cont.

CPS9E

SEQ. ID. NO. 39

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MYPICKRILA I...IAIVV LSPILLIAL AIKLDKGPV L...VGN KSYFMIYKFR
SMYVDAPSDM PTHLLKDPKA MITKVGAFRL KTSLELPQL FNIFKGEMAI
VGPRPALWNQ YDLIEERDKY GANDIRPGLT GWAQINGRDE LEIDEKSKLD GYYVQNMSLG
LDIKCFLGTF LSVARSEGVV EGGTGQKGKG

Fig. 5 cont.

CPS9F

SEQ. ID. NO. 40

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MKFSVLMSVY EKEKPEFLRE SLESILVNQT MIPTEVVLVE DGPLNQSLYS ILEEFKSRFS
FFKTIALEKN SGLGIALNEG LKHCNYEWVC TKWILMLHI HTRFEKQVNF
IKQNPTIDIE IDEFLNSTSE IVSHKNVPTQ HDEILKMARR EKSMCHMTVM FKKKSVERAG
GYQTLPYVED YFLWVRMIAS GSKFANIDET LVLARVGNGM FNRRGNREQI
NSWTLLEIFM LAQGIVTPLD VFINQIYIRV FVYMPTWIKK LIYGKILRK

Fig. 5 cont.

CPS9G

SEQ. ID. NO. 41

09767041.012204

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MITVLMATYN GSPFIIKQLD SIRNQSVSAD KVIIWDDCST DDTIKIHKDY IKKYSLDSWV
VSQNKSNQGH YQTFINLTKL VQEGIVFFSD QDDIWDCHKI ETMLPIFDRE
NVSMVFCKSR LIDENGNIIS SPDTSRINT YSL

Fig. 5 cont.

CPS9H

SEQ. ID. NO. 42

T022T0" T4029260

CTGCAGCACA TACCATGTT CCATTGATGG AATATAATCC ACAGCA GTGAAGAATA
 ATATTTTTTGG AACGAAGAAT GTGGCTGAGG CGGCTAAAAC TGCAAAGGTT
 GCCAAATTTG TTATGGTTTC AACAGATAAA GCTGTTAATC CGCCAAATGT CATGGGAGCG
 ACTAACCGTG TTGCAGAAAT GATTGTAACA GGTTTAAACG AGCCAGGTCA
 GACTCAATTT GCGGCAGTCC GTTTTGGGAA TGTTCTAGGT AGTCGTGGAA GTGTTGTTCC
 GCTATTCAAA GAGCAAATTA GAAAAGGTGG ACCTGTACG GTTACCGACT
 TTAGGATGAC TCGTTATTTT ATGACGATTC CTGAGGCAAG TCGTTTGTT ATCCAAGCTG
 GACATTTGGC AAAAGGTGGA GAAATCTTTG TCTTGGATAT GGGTGAGCCA
 GTACAAATCC TGGAAATTGGC AAGAAAAGTT ATCTTGTTAA GCGGACATAC AGAGGAAGAA
 ATCGGGATTG TAGAATCTGG AATCAGACCA ACAGATTCAT GAAAAAATAT TTGTGGGTCCG
 ATTGTTATCA ACAGAAGAAC GTGTCAGCGA ACAGATTCAT GAAAAAATAT TTGTGGGTCCG
 CGTTACAAAT AAGCAGTCGG ACATTGTCAA TTCATTTATC AATGGATTAC
 TCCAAAAGAA TAGAAATGAA TTAAGAGATA TGTTGATTGA ATTTGCAAAA CAAGAATAAG
 AAAGTAAAAA ATATTTTTTAC TTTCTAGAG TTTAAACGAT GTTTAAGTTC
 TAGGAAGGTT GGAATTGCTT TCGTGGAGGT GATAGATAGA AACCTATATA TTTGTAGAAG
 AAAGGATATT AAACATAAGG TGAATCGGAA CATAAAGTTT AGATAGAGTT
 GGTATTTAAT GCCAAACAGG TGAATGCAAC CTCTCGCTCG TTAATAAGCA GGAGATAGTA
 AAGTTGCTTG AAAGAGAGTT TGTTAATCAG TATAAGTAGG CTAAGTGAG
 AATATATATC TATTATTATC GGTAATGATA CTATTATTGA GAATTATTGT AGTGGGGATA
 AAAATAATTT TTGGTGATTT TATCGTCCGA CTTAAAGGTG GGTAAAAAAA
 GTACTTATAT TCTTTTAGAA TTGATGAAAA ATATGGGGGA ATATAATATT TATAGGAGAT
 ACGTAGACTA GAGTAGAGTT GATTACTAGA GAATTTTTTTA AGAAGAATGA
 AGCAACCAGT AAATATTTTC AGAAGATAGA ATCAAGAAGA GGTGAATTAT TTATTAAATT
 CTTTATGGAT AAGTTACTTG CGCTTATCCT ATTATTGCTA TTATCCCAG
 TAATCATTAT ATTAGCTATT TGGATAAAAT TAGATAGTAA GGGGCCAATT TTTTATCGCC
 AAGAACGTGT TACGAGATAT GGTCAATTTT TTAGAATATT TAAGTTTAGA
 ACAATGATTT CTGATGCGGA TAAAGTCGGA AGTCTTGTC CAGTCGGTCA AGATAATCGT
 ATTACGAAAG TCGGTCACAT TATCAGAAAA TATCGGCTGG ACGAAGTGCC
 CCAACTTTTT AATGTTTTTAA TGGGGGATAT GAGCTTTGTA GGTGTAAGAC CAGAAGTACA
 AAAATATGTA AATCAGTATA CTGATGAAAT GTTTGCGACG TTACTTTTAC
 CTGCAGGAAT TACTTCACCA GCGAGTATTG CATATAAGGA TGAAGATATT GTTTTAGAAG
 AATATTGTTT TCAAGGCTAT AGTCTGTATG AAGCATATGT TCAAAAAGTA
 TTACCAGAAA AAATGAAGTA CAATTTGGAA TATATCAGAA ACTTTGGAAT TATTTCTGAT
 TTTAAAGTAA TGATTGATAC AGTAATTTAA GTAATAAAAT AGGAGATTAA
 AATGACAAAA AGACAAAATA TTCCATTTTC ACCACCAGAT ATTACCCAAG CTGAAATTGA
 TGAAGTTATT GACACACTAA AATCTGGTTG GATTACAACA GGACCAAAGA
 CAAAAGAGCT AGAACGTCGG CTATCAGTAT TTACAGGAAC CAATAAACT GTGTGTTTAA
 ATTCTGCTAC TGCAGGATTG GAACTAGTCT TACGAATTCT TGGTGTTGGA
 CCCGGAGATG AAGTTATTGT TCCTGCTATG ACCTATACTG CCTCATGTAG TGTCATTACT
 CATGTAGGAG CAATCTCTGT GATGGTTGAT ATTCAAAAAA ACAGCTTTGA
 GATGGAATAT GATGCTTTGG AAAAAGCGAT TACTCCGAAA ACAAAGTTA TCATTCTGT
 TGATCTAGCT GGTATTCCTT GTGATTATGA TAAGATTTAT ACCATCGTAG
 AAAACAAACG CTCTTTGTAT GTTGCTTCTG ATAATAAATG GCAGAACTT TTTGGGCGAG
 TTATTATCCT ATCTGATAGT GCACACTCAC TAGGTGCTAG TTATAAGGGA
 AAACCAGCGG GTTCCCTAGC AGATTTTACC TCATTTTCTT TCCATGCAGT TAAGAATTTT
 ACAACTGCTG AAGGAGGTAG TGTGACATGG AGATCACATC CTGATTGGA
 TGACGAAGAG ATGTATAAAG AGTTTCAGAT TTAATCTCTT CATGGTCAGA CAAAGGATGC
 ATTAGCTAAG ACACAATTAG GGTCATGGGA ATATGACATT GTTATTCCTG
 GTTACAAGTG TAATATGACA GATATTATGG CAGGTATCGG TCTTGTGCAA TTAGAAGGTT
 ACCCATCTTT GTTGAATCGT CGCAGAGAAA TCATTGAGAA ATACAATGCT
 GGCTTTGAGG GGACTTCGAT TAAGCCGTTG GTACACCTGA CGGAAGATAA ACAATCGTCT
 ATGCACCTGT ATATCACGCA TCTACAAGGC TATACTTTAG AACAACGAAA
 TGAAGTCATT CAAAAAATGG CTGAAGCAGG TATTGCGTGC AATGTTCACT ACAAACCATT
 ACCTCTTCTC ACAGCCTACA AGAATCTTGG TTTTGAAATG AAAGATTTTC
 CGAATGCCTA TCAGTATTTT GAAAATGAAG TTACTGCTC TCTTCATACC AACTTGAGTG
 ATGAAGATGT GGAGTATGTG ATAGAAATGT TTTTAAAAAT TGTTAGTAGA
 GATTAGTTAT TTTGGAAGGA GATATGGTGG AAAGAGATAT GGTGGAAAGA GACACGTTGG
 TATCTATAAT AATGCCCTCG TGGAATACAG CTAAGTATAT ATCTGAATCA
 ATCCAGTCAG TGTTGGACCA AACACACCAA AATTGGGAAC TTATAATCGT TGATGATTGT
 TCTAATGACG AAACGAAAA AGTTGTTTCG CATTTCAAAG ATTCAAGAAT

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Fig. 6

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AAAGTTTTTT AAAAATTCGA ATAATTTAGG GGCAGCTCTA ACACGAAATA AGGCACTAAG
AAAAGCTAGA GGTAGGTGGA TTGCGTTCTT GGATTCAGAT GATTTATGGC
ACCCGAGTAA GCTAGAAAAA CAGCTTGAAT TTATGAAAAA TAATGGATAT TCATTTACTT
ATCACAATTT TGAAAAGATT GATGAATCTA GTCAGTCTTT ACGTGTCTCTG
GTGTCAGGAC CAGCAATTGT GACTAGAAAA ATGATGTACA ATTACGGCTA TCCAGGGTGT
TTGACTTTCA TGTATGATGC AGACAAAATG GGTTTAATTC AGATAAAAGA
TATAAAGAAA AATAACGATT ATGCGATATT ACTTCAATTG TGTAAGAAGT ATGACTGTTA
TCTTTTAAAT GAAAGTTTAG CTTCGTATCG AATTAGAAAA AA

Fig. 6 cont.

SEQ. ID. NO. 43

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PCT/NL99/00460

AAHKHVPLME YHEAVKNN IFGTKNVAEA AKTAKVAKFV MVEOKAVNP PNVMGATKRV
AEMIVTGLNE PGQTQFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF
RMTRYFMTIP EASRLVIQAG HLAGGGEIFV LDMGEPVQIL ELARKVILLS GHTEEEIGIV
ESGIRPGEKL YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL
QKDRNELKDM LIEFAKQE

Fig. 6 cont.

CPS7E

SEQ. ID. NO. 44

T022T0" T4029260

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PCT/NL99/00460

MTRVELITRE LNEATSK YFQIESRRG ELFIKFFMDK LLLLLL SPVIIILAIW
IKLDSKGPIF YRQERVTRYG RIFRIFKERT MISDADKVG LTVGQDNRI
TKVGHIIRKY RLDEVPQLFN VLMGDSFVG VRPEVQKYVN QYTDEMFATL LLPAGITSPA
SIAYKDEDIV LEEYCSQGYS PDEAYVQKVL PEKMKYNLEY IRNFGIISDF
KVMIDTVIKV IK

Fig. 6 cont.

CPS7F

SEQ. ID. NO. 45

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PCT/NL99/00460

MTKRQNIFFS E TQAEID EVIDTLKSGW ITTGPKTKEL EF VFTGT NKTVCLNSAT
AGLELVLRIL GVGPGDEVIV PAMTYTASCS VITHVGATPV MVDIQKNSFE
MEYDALEKAI TPCTKVII PV DLAGIPCDYD KIYTIVENKR SLYVASDNKW QKLFGRVIIL
SDSAHSLGAS YKGKPAAGSLA DFTSFSFHAV KNFTTAEGGS VTWRSHPDLD
DEEMYKEFQI YSLHGQTKDA LAKTQLGSWE YDIVIPGYKC NMTDIMAGIG LVQLERYPSL
LNRRREIIIEK YNAGFEGTSI KPLVHLTEDK QSSMHLYITH LQGYTLEQRN
EVIQKMAEAG IACNVHYKPL PLLTAYKNLG FEMKDFPNAY QYFENEVTLP LHTNLSDEDV
EYVIEMFLKI VSRD

Fig. 6 cont.

CPS7G

SEQ. ID. NO. 46

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MVERDMVERD TLVSIIMPSW NTAKYISESI QSVLDQTHQN WELIIVDDCS NDETEKVVSH
FKDSRIKFFK NSNNLGAALT RNKALRKARG RWIAFLDSDD LWHPSKLEKQ
LEFMKNNGYS FTYHNFEEKID ESSQSLRVLV SGPAIVTRKM MYNYGYPGCL TFMYDADKMG
LIQIKDIKKN NDYAILLQLC KKYDCYLLNE SLASYRIRK

Fig. 6 cont.

CPS7H

SEQ. ID. NO. 47

FOI 2001-012201

Cps2J	MEKVSIIVPI	FNTEKYLR	REC	LDSIIISQSYT	NLEILLIDDG	SSDSSTDICL	EYAEQDGR	IK	60
Cps2K	MINISIIVPI	YNVEQYLSK	C	INSIVNQTYK	HIEILLVNDG	STDNSEEICL	AYAKKDSR	IR	60
	*								
Cps2J	LFRLPNGGVS	NARNYGIKNS		TANYIMFVDS	DDIVDGNIVE	SLYTCLKEND	SDLSGGLLAT		120
Cps2K	YFKKENGGLS	DARNYGISRA		KGDYLA FIDS	DDFIHSEFIQ	RL_HEAIERE	NAL__VAVAG		117

Cps2J
(SEQ. ID. NO. 51)

Cps2K
(SEQ. ID. NO. 52)

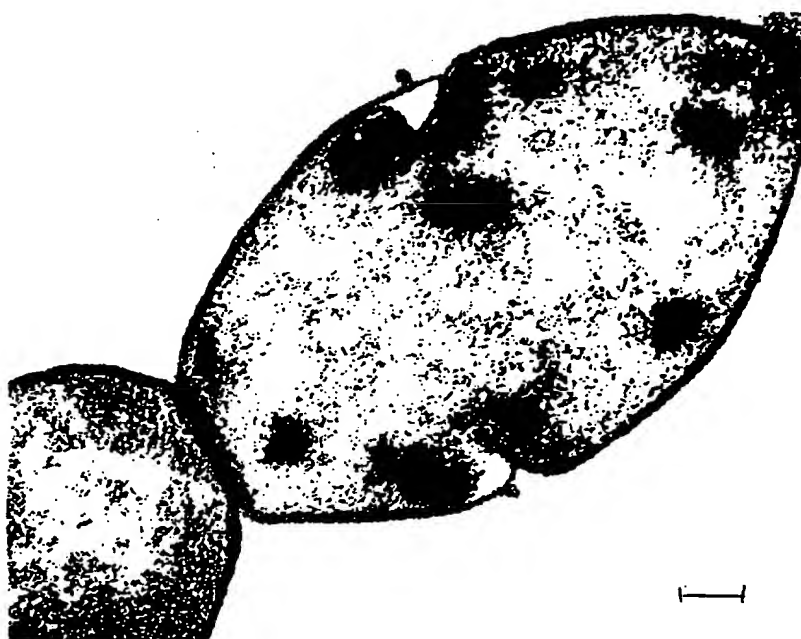
Fig. 7

0976011 01003

A



B



C

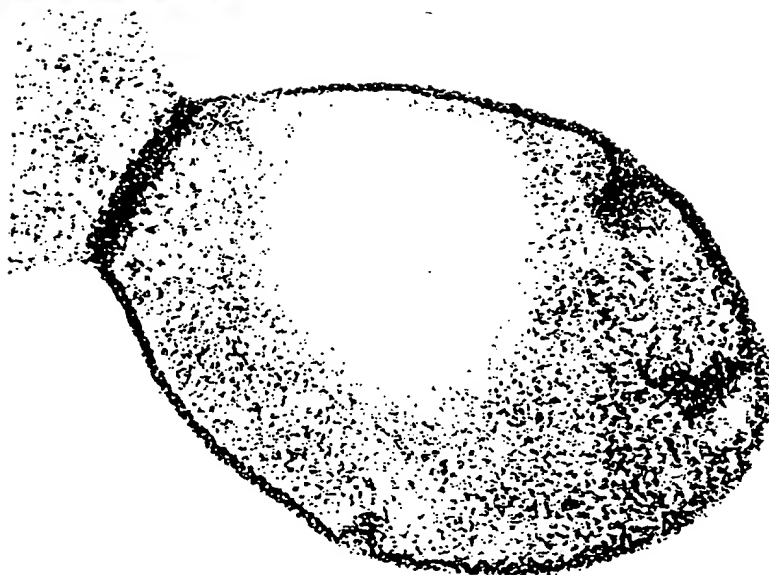


Fig. 8

Best Available Copy

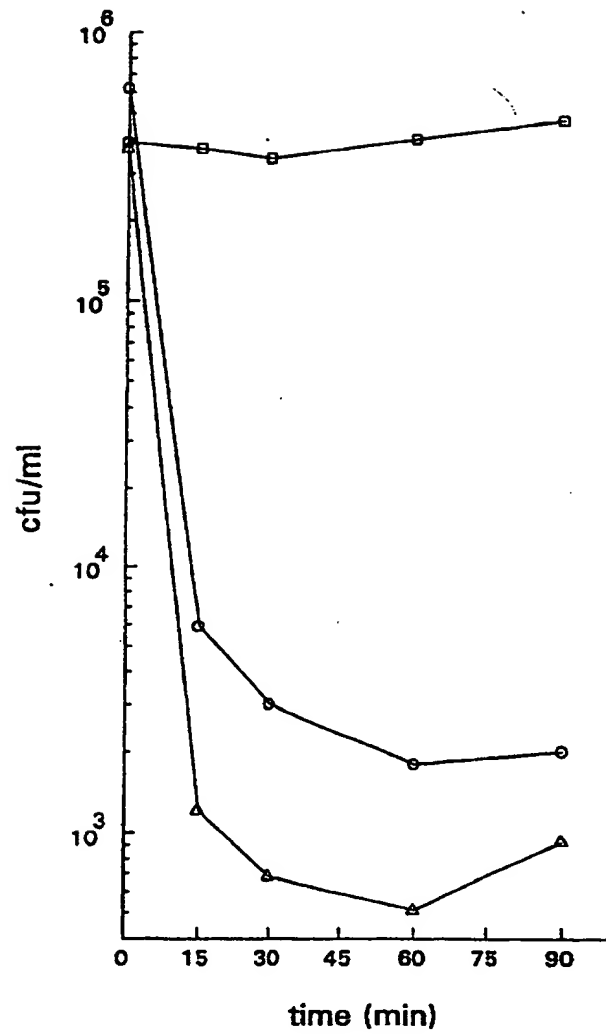


Fig. 9A

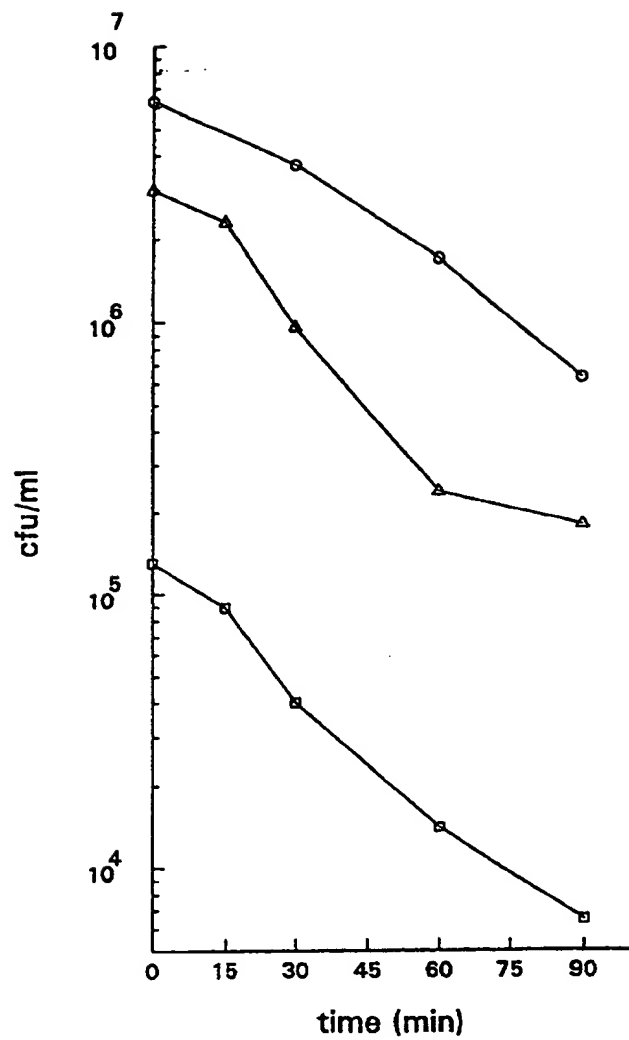


Fig. 9B

(1)	10508	AAGGCACCT	CTATAAACTC	CCAAAATTGC	GAATTGGAG	TTACGAAAGC	CTTGTTAAAT	CAA-CATTTTA	AATTTAGAA	AATTAGTTTT	TAGAGTCCC	10607	SEQ. ID. NO. 48
(2)	16985	GGGGCACCT	CTATAAACTC	CCAAAATTGC	GAATTGGAG	TTACGAAAGC	CTTGTTAAAT	CAA-CATCTTA	AATTTAGAA	AATTAGTTTT	TAGAGTCCC	17084	SEQ. ID. NO. 49
(3)	19803	AAGGCACCT	CTATAAACTC	CCAAAATTGC	GAATTGGAG	TTACGAAAGC	CTTGTTAAAT	CAACATTTTA	AATTTAGAA	AATTAGTTTT	TAGAGTCCC	19903	SEQ. ID. NO. 50

Fig. 10

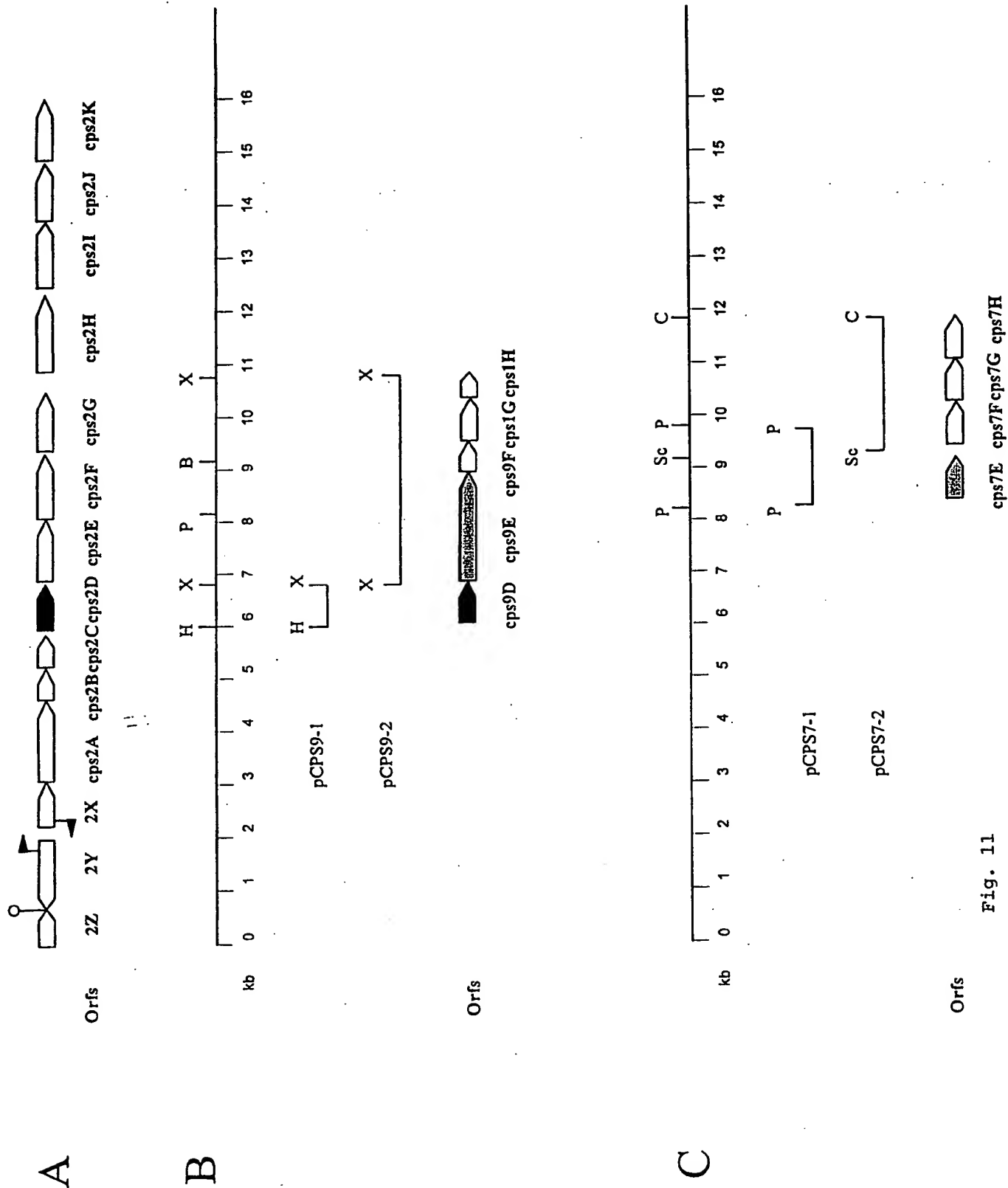


Fig. 11

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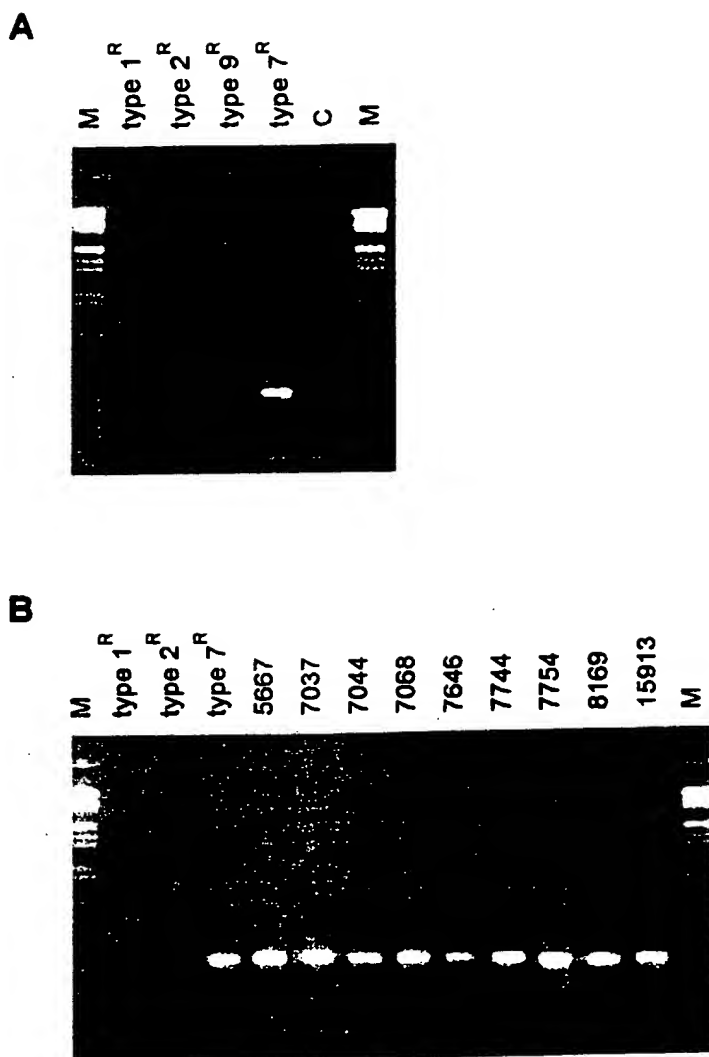


Fig. 12

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